TCC | Tarrant County College

SUCCESS WITHIN REACH.

Tarrant County College District

2026-2028 Catalog

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2026-2028 TCCD Program Inventory List

Program Type Definitions			
Course Numbering System			
AA - Associate of Arts	**AS** - Associate of Science	**AAT** - Associate of Arts in Teaching	**FOS** - Field of Study
AAS - Associate of Applied Science	**C1** - Level 1 Certificate	**C2**- Level 2 Certificate	**OSA** - Occupational Skills Award
ATC - Advanced Technical Certificate	**ESC** - Enhanced Skills Certificate		

PROGRAM STATUS	PROGRAM CODE	PROGRAM NAME	PROGRAM TYPE	CAMPUS						HOURS	CIP CODE
Transfer											
	AART.D006.UG	AA.Associate of Arts	AA	SO	NE	NW	SE	TR	CN	60	24.0102
	AART.D003.UG	AA.Associate of Arts in Music	AA	SO	NE	NW	SE	TR	CN	60	50.0901
Revised	AATE.D003.UG	AAT.Associate of Arts in Teaching (E-6)	AAT	SO	NE	NW	SE	TR	CN	60	13.1210
Revised	AATE.D006.UG	AAT.Associate of Arts in Teaching (Grades 7-12)	AAT	SO	NE	NW				60	13.1205
	ASCI.D001.UG	AS.Associate of Science	AS	SO	NE	NW	SE	TR	CN	60	24.0102
	ASCE.D006.UG	AS.Associate of Science in Engineering	AS				SE			60	14.0101
Field of Study											
	AFOS.F031.UG	FOS.Business Administration	FOS	SO	NE	NW	SE	TR	CN	24	52.0101
New	AFOS.F037.UG	FOS.Communications	FOS	SO	NE	NW	SE	TR	CN	18	09.0101
	AFOS.F024.UG	FOS.Criminal Justice	FOS		NE	NW		TR	CN	21	43.0104
	AFOS.F034.UG	FOS.Education (Early Childhood - 3 Core Subjects)	FOS	SO	NE	NW	SE	TR	CN	21	13.1206
	AFOS.F035.UG	FOS.Education (4-8 Core Subjects)	FOS	SO	NE	NW	SE	TR	CN	21	13.1206
	AFOS.F036.UG	FOS.Education (Early Childhood - 6 Core Subjects)	FOS	SO	NE	NW	SE	TR	CN	21	13.1206
	AFOS.F032.UG	FOS.History	FOS	SO	NE	NW	SE	TR	CN	21	54.0101
	AFOS.F015.UG	FOS.Nursing	FOS	SO	NE	NW	SE	TR	CN	34	51.3801
	AFOS.F029.UG	FOS.Psychology	FOS	SO	NE	NW	SE	TR	CN	18	42.0101
	AFOS.F016.UG	FOS.Social Work	FOS	SO	NE	NW	SE	TR	CN	15	44.0701
	AFOS.F033.UG	FOS.Sociology	FOS	SO	NE	NW	SE	TR	CN	21	45.1101
Career and Technical Education											
Revised	ACCO.D002.UG	AAS.Accounting Information Management	AAS						CN	60	52.0302
Revised	ACCO.T007.UG	CRT.Accounting Specialist I	C1						CN	30	2.0302
Revised	ACCO.T008.UG	CRT.Accounting Specialist II	C2						CN	45	52.0302
	ANES.D001.UG	AAS.Anesthesia Technology	AAS					TR		60	51.0809
	ARCH.D001.UG	AAS.Architectural Technology	AAS	SO						60	15.0101
	ARCH.T009.UG	OSA.Architectural Technology	OSA	SO						9	15.0101
	ARCH.T001.UG	CRT.Architectural CAD Operator	C1	SO						18	15.0101
	ARCH.T005.UG	CRT.Architectural Paraprofessional	C1	SO						30	15.0101
	AUTC.D001.UG	AAS.Automotive Collision Repair	AAS	SO						60	47.0603
	AUTC.T001.UG	CRT.Automotive Metal Repair	C1	SO						21	47.0603
	AUTC.T002.UG	CRT.Automotive Refinishing	C1	SO						21	47.0603
	AUTS.D001.UG	AAS.Automotive Service Technology	AAS	SO						60	47.0604
	AUTS.T003.UG	OSA.General Service Technician	OSA	SO						12	47.0604
	AUTS.T001.UG	CRT.Engine Analysis Technician	C1	SO						21	47.0604
	AUTS.T002.UG	CRT.Heavy Line Technician	C1	SO						29	47.0604
	AUTS.D002.UG	AAS.Automotive Service Technology-Toyota Technician Edu Net	AAS	SO						60	47.0604
	AUTS.T004.UG	CRT.Toyota General Service Technician	C1	SO						24	47.0604
	AUTS.T005.UG	CRT.Toyota Service Technician	C2	SO						45	47.0604
	AVIA.D002.UG	AAS.Aviation Maintenance Technology Airframe	AAS			NW				60	47.0607
	AVIA.T004.UG	CRT.Advanced Composite Technology	C1			NW				16	47.0607
	AVIA.T005.UG	CRT.Avionics Line Maintenance	C1			NW				30	47.0607
	AVIA.T001.UG	CRT.Aviation Maintenance Technology Airframe	C2			NW				45	47.0607
	AVIA.D003.UG	AAS.Aviation Maintenance Technology Powerplant	AAS			NW				60	47.0608
	AVIA.T002.UG	CRT.Aviation Maintenance Technology Powerplant	C2			NW				45	47.0608
	BACC.D001.UG	AAS.Business Administration - Accounting Assistant	AAS	SO	NE	NW	SE		CN	60	52.0302
	BACC.T001.UG	CRT.Accounting Assistant I	C1	SO	NE	NW	SE		CN	15	52.0302
	BACC.T002.UG	CRT.Accounting Assistant II	C1	SO	NE	NW	SE		CN	24	52.0302
	BACC.T003.UG	CRT.Accounting Assistant III	C2	SO	NE	NW	SE		CN	45	52.0302
	BBUS.D001.UG	AAS.Business Administration - Business	AAS	SO	NE	NW	SE	TR	CN	60	52.0101
	BBUS.T001.UG	CRT.Business I	C1	SO	NE	NW	SE	TR	CN	24	52.0101
	BBUS.T002.UG	CRT.Business II	C2	SO	NE	NW	SE	TR	CN	45	52.0101
	BESB.D001.UG	AAS.Entrepreneurship & Small Business Management	AAS		NE	NW			CN	60	52.0703
	BESB.T003.UG	OSA.Small Business Associate	OSA			NW				12	52.0701
	BESB.T001.UG	CRT.Entrepreneurship and Small Business Mangagement I	C1		NE	NW			CN	21	52.0701
	BESB.T002.UG	CRT.Entrepreneurship & Small Business Management II	C2		NE	NW			CN	45	52.0703
	BFSH.D001.UG	AAS.Business Administration - Fashion Merchandising	AAS		NE					60	52.1902
	BFSH.T003.UG	OSA.Fashion Sales Associate	OSA		NE					12	52.1902
	BFSH.T001.UG	CRT.Fashion Merchandising I	C1		NE					21	52.1902
	BFSH.T002.UG	CRT.Fashion Merchandising II	C2		NE					45	52.1902
	BMNG.D001.UG	AAS.Business Administration - Management	AAS	SO	NE		SE		CN	60	52.0201
	BMNG.T003.UG	CRT.Retail Management	C1		NE		SE		CN	24	52.0212
	BMNG.T001.UG	CRT.Management I	C1	SO	NE		SE		CN	24	52.0201
	BMNG.T002.UG	CRT.Management II	C2	SO	NE		SE		CN	45	52.0201
Revised	BMRK.D001.UG	AAS.Business Administration - Marketing	AAS					TR	CN	60	52.1401
Revised	BMRK.T004.UG	CRT.Digital Marketing	C1				SE	TR	CN	21	52.1404
Revised	BMRK.T005.UG	CRT.Social Media Marketing	C2				SE	TR	CN	45	52.1404
	SRCS.T001.UG	CRT.Central Sterile Processing	C1					TR		16	51.1012
	CHIL.D001.UG	AAS.Child Development	AAS		NE					60	19.0706
Revised	CHIL.T007.UG	CRT.After School Provider	C1		NE					26	19.0706
Revised	CHIL.T003.UG	CRT.Preschool Child Care Provider	C1		NE					30	19.0709
Revised	CHIL.T002.UG	CRT.Child Care Administration	C2		NE					39	19.0708
	CBCT.D001.UG	AAS.CADD-Building/Civil Technology	AAS	SO						60	15.1303
	CBCT.T001.UG	CRT.Building Technology	C1	SO						29	15.1303
	CBCT.T002.UG	CRT.Civil Technology	C1	SO						30	15.1304
	CMFT.D001.UG	AAS.CADD Technology - Manufacturing Technology	AAS	SO						60	15.0613
	CMFT.T003.UG	OSA.Basic CAD Technician	OSA	SO						14	15.1302
	CMFT.T002.UG	CRT.CNC Machinist Technology	C1	SO						25	48.0510
	CMFT.T001.UG	CRT.Manufacturing Technology	C2	SO						44	15.0613
	CONS.D003.UG	AAS.Construction Management Technology	AAS	SO						60	15.1001
	CONS.T004.UG	CRT.Construction Inspection Technician	C1	SO						19	15.1001
	CONS.T008.UG	CRT.Construction Management Technology	C1	SO						28	15.1001
	CRIM.D001.UG	AAS.Criminal Justice	AAS			NW				60	43.0104
	CRIM.T006.UG	OSA.Security Management	OSA			NW				9	43.0109
	CRIM.T003.UG	CRT.Basic Peace Officer Certification	C1			NW				24	43.0107
	CRIM.T007.UG	CRT.Criminal Justice and Policing	C1			NW		TR		24	43.0104
	CULI.D003.UG	AAS.Culinary Arts	AAS				SE			60	12.0503
	CULI.T007.UG	CRT.Culinary Arts I	C1				SE			18	12.0503
	CULI.T009.UG	CRT.Baking and Pastry	C1				SE			29	12.0503
	CULI.T006.UG	CRT.Catering/Private Chef	C2				SE			47	12.0503
	DENH.D001.UG	AAS.Dental Hygiene	AAS		NE					68	51.0602

	DMSO.D001.UG	AAS.Diagnostic Medical Sonography	AAS					TR		65	51.0910
	DEMR.T001.UG	**CRT.Diesel Technician**	**C1**	**SO**						**30**	**47.0605**
	LNWK.D001.UG	**AAS.Electrical Line Technician**	**AAS**	**SO**						**60**	**46.0303**
	LNWK.T001.UG	CRT.Ground Technician	C1	SO						25	46.0303
	LNWK.T002.UG	CRT.Line Technician	C2	SO						44	46.0303
	ELPT.T001.UG	**CRT.Electrician Helper**	**C1**	**SO**						**18**	46.0301
	ENGY.D001.UG	**AAS.Electronics Technology - Advanced Energy Technician**	**AAS**	**SO**						**60**	**15.1701**
	ENGY.T001.UG	CRT.Renewable Energy Technology	C1	SO						29	15.1701
	EROB.D001.UG	**AAS.Electronics Technology - Robotics and Automation**	**AAS**	**SO**						**60**	**15.0407**
	EROB.T001.UG	CRT.Mechatronics Technology	C1	SO						30	15.0407
	ETCM.T001.UG	CRT.Electronics Technology	C1	SO						23	15.0305
	EMER.D002.UG	**AAS.Emergency Medical Services**	**AAS**		**NE**					**60**	**51.0904**
	EMER.T003.UG	CRT.Emergency Medical Technician	C1		NE					18	51.0904
	EMER.T002.UG	CRT.Paramedic Program	C1		NE					33	51.0904
	FIRP.D001.UG	**AAS.Fire Protection Technology**	**AAS**			**NW**				**60**	**43.0201**
	FIRP.T003.UG	CRT.Basic Firefighter Certification	C1			NW				18	43.0203
Revised	**GINS.D001.UG**	**AAS.Geographic Information Systems**	**AAS**					**TR**		**60**	**45.0702**
Revised	GINS.T004.UG	CRT. Basic Geographic Information Systems Skills	C1					TR		20	45.0702
Revised	GINS.T005.UG	CRT.Geographic Information Systems Programmer	C2					TR		45	45.0702
	GRPH.D002.UG	**AAS.Graphic Communication**	**AAS**		**NE**					**60**	**10.0301**
	GRPH.T004.UG	CRT.Computer Graphics	C1		NE					36	10.0303
	GRPH.T006.UG	CRT.Photographic Retouching	C1		NE					15	10.0301
	HITT.D001.UG	AAS.Health Information Technology	**AAS**					**TR**		**60**	**51.0707**
	HCMG.D001.UG	AAS.Healthcare Management	**AAS**						**CN**	**60**	**52.0201**
	HCMG.T001.UG	CRT.Healthcare Management Specialist I	C1						CN	23	52.0201
	HCMG.T002.UG	CRT.Healthcare Management Specialist II	C2						CN	44	52.0201
	HEAT.D005.UG	AAS.Commercial HVAC/R Technician	**AAS**	**SO**						**60**	**15.0501**
	HEAT.T008.UG	OSA.HVAC Installer	OSA	SO						11	15.0501
	HEAT.T011.UG	CRT.HVAC/R Commercial Technician	C2	SO						51	15.0501
	HEAT.D006.UG	AAS.Residential HVAC/R Technician	**AAS**	**SO**						**60**	**15.0501**
	HEAT.T009.UG	CRT.HVAC Residential Technician I	C1	SO						23	15.0501
	HEAT.T010.UG	CRT.HVAC Residential Technician II	C1	SO						20	15.0501
Revised	**HORT.D001.UG**	**AAS.Horticulture**	**AAS**			**NW**				**60**	**01.0601**
Revised	HORT.T008.UG	OSA.Sustainable Food Crops	OSA			NW				13	01.0601
Revised	HORT.T005.UG	CRT.Plant Health Specialist	C1			NW				19	01.0601
Revised	HORT.T004.UG	CRT.Horticulture	C1			NW				31	01.0601
	HFSM.D001.UG	**AAS.Hospitality Management- Food Service Management**	**AAS**				**SE**			**60**	**52.0909**
	HFSM.T003.UG	CRT.Foodservice Operations	C1				SE			18	52.0909
	HFSM.T001.UG	CRT.Beverage Management I	C1				SE			22	52.0909
	HFSM.T002.UG	CRT.Beverage Management II	C2				SE			40	52.0909
	HTTM.D001.UG	**AAS.Hospitality Management-Hospitality/Travel & Tourism Mgt**	**AAS**				**SE**			**60**	**52.0909**
	HTTM.T001.UG	CRT.Hospitality/Hotel Supervision	C1				SE			16	52.0909
	HTTM.T002.UG	CRT.Hospitality/Travel & Tourism Supervision	C2				SE			43	52.0903
	HMEC.D001.UG	**AAS.Hospitality Management-Meeting/Evnt Plan/Conv & Grp Mgt**	**AAS**				**SE**			**60**	**52.0901**
	HMEC.T001.UG	CRT.Meeting & Evt Planning/Convention & Grp Mgmt	C1				SE			19	52.0901
	HRMG.D001.UG	**AAS.Human Resources Management**	**AAS**		**NE**				**CN**	**60**	**52.1001**
	HRMG.T001.UG	CRT. Human Resources Specialist I	C1	SO	NE	NW	SE		CN	24	52.1001
	HRMG.T002.UG	CRT. Human Resources Specialist II	C2		NE				CN	42	52.1001
	INMT.D003.UG	**AAS.Industrial Technician**	**AAS**	**SO**						**60**	**15.0612**
	INMT.T005.UG	CRT.Industrial Technician I	C1	SO						25	15.0612
	INMT.T006.UG	CRT.Industrial Technician II	C2	SO						42	15.0612
	CSSC.T002.UG	Information Technology: Computer Support Specialist (Customer Service/Call Center/Teleservice Operations)	C1				SE			18	11.1006
	ITCL.D001.UG	**AAS.Information Technology-Cloud Computing**	**AAS**		**NE**					**60**	**11.0902**
	ITCL.T001.UG	CRT.Information Technology-Cloud Computing I	C1		NE					30	11.0902
	ITCY.D001.UG	**AAS.Information Technology-Cybersecurity**	**AAS**	**SO**	**NE**	**NW**	**SE**	**TR**	**CN**	**60**	**11.1003**
	ITCY.T001.UG	CRT.Information Technology-Cybersecurity Specialist	C1	SO	NE	NW	SE	TR	CN	27	11.1003
	ITCY.T002.UG	CRT.Information Technology-Ethical Hacking	C2	SO	NE	NW	SE	TR	CN	47	11.1003
	ITGM.D001.UG	**AAS.Information Technology-Game/Simulation/Animation Design**	**AAS**	**SO**						**60**	**11.0204**
	ITGM.T003.UG	CRT.Information Technology-Animation for Game/Simulation	C1	SO						21	11.0204
	ITGM.T001.UG	CRT.Information Technology-Game/Simulation Programming I	C1	SO						20	11.0204
	ITGM.T002.UG	CRT.Information Technology-Game/Simulation Programming II	C2	SO						39	11.0204
	ITNS.D001.UG	**AAS.Information Technology-Network Support**	**AAS**	**SO**	**NE**		**SE**			**60**	**11.1001**
	ITNS.T001.UG	CRT.Information Technology-Cisco Support	C1	SO	NE		SE			16	11.1001
	ITNS.T002.UG	CRT.Information Technology-Information Technology Support	C1	SO	NE	NW	SE	TR		21	11.0103
	ITNS.T003.UG	CRT.Information Technology-Network Support	C2	SO	NE		SE			41	11.1001
	ITPG.D001.UG	**AAS.Information Technology-Programming**	**AAS**	**SO**	**NE**	**NW**	**SE**	**TR**	**CN**	**60**	**11.0201**
	ITPG.T001.UG	CRT.Information Technology-Programming I	C1	SO	NE	NW	SE	TR	CN	25	11.0201
	ITPG.T002.UG	CRT.Information Technology-Programming II	C2	SO	NE	NW	SE	TR	CN	30	11.0201
	ITWB.D001.UG	**AAS.Information Technology-Web Applications Programming**	**AAS**	**SO**	**NE**		**SE**	**TR**		**60**	**11.0202**
	ITWB.T001.UG	CRT.Information Technology-Web Applications Programming I	C1	SO	NE	NW	SE	TR		28	11.0202
	ITWB.T002.UG	CRT.Information Technology-Web Applications Programming II	C2	SO	NE	NW	SE	TR		31	11.0202
	LIBR.D001.UG	**AAS.Library Technician**	**AAS**					**TR**		**60**	**25.0301**
	LIBR.T001.UG	CRT.Library Technician	C1					TR		19	25.0301
	LOGI.D002.UG	**AAS.Logistics and Supply Chain Management**	**AAS**			**NW**				**60**	**52.0203**
	LOGI.T001.UG	CRT.Transportation Management	C1			NW				15	52.0209
	LOGI.T003.UG	CRT.Warehouse Management	C1			NW				15	52.0409
	LONG.T001.UG	**CRT.Long Term Care Administration**	**C1**					**TR**		**27**	**51.0718**
	MDCA.T001.UG	**CRT.Medical Assistant**	**C1**	**SO**				**TR**		**40**	**51.0801**
	MENT.D004.UG	**AAS.Mental Health and Human Services**	**AAS**		**NE**					**60**	**51.1502**
	MENT.T004.UG	CRT.Social Work	C1		NE					30	51.1502
	MENT.D005.UG	**AAS.Mental Health-Substance Abuse Counseling**	**AAS**		**NE**					**60**	51.1501
	MENT.T003.UG	CRT.Substance Abuse Counseling	C1		NE					24	51.1501
New	**SMTT.D001.UG**	**AAS.Microelectronics Nanomanufacturing**	**AAS**	SO						**60**	15.0616
New	SMTT.T001.UG	CRT.Microelectronics Technology	C1	SO						19	15.0616
New	SMTT.T002.UG	CRT.Vacuum Technology	C1	SO						19	15.0616
	NDTE.D002.UG	**AAS.Nondestructive Inspection, Testing and Evaluation**	**AAS**			**NW**				**60**	**15.0702**
	NDTE.T001.UG	CRT.Nondestructive Testing Technician	C1			NW				26	15.0702
	NDTE.T002.UG	CRT.Radiography Technician	C1			NW				19	15.0702
	NMTT.D001.UG	**AAS.Nuclear Medicine Technology**	**AAS**					**TR**		**60**	**51.0905**
	NURS.D003.UG	**AAS.Nursing**	**AAS**					**TR**		**60**	**51.3801**
Revised	**DIET.D003.UG**	**AAS.Nutrition and Dietetics**	**AAS**				**SE**			**60**	**51.3103**
Revised	DIET.T008.UG	OSA.Healthy Meal Planning	OSA				SE			10	51.3103
Revised	DIET.T006.UG	CRT.Nutrition Specialist I	C1				SE			16	51.3103

Revised	DIET.T009.UG	CRT.Dietary Manager	C1				SE			18	51.3103
Revised	DIET.T007.UG	CRT.Food and Nutrition Coach	C2				SE			40	51.3103
	ENVI.D003.UG	**AAS.Occupational Safety and Environmental Technology**	**AAS**			**NW**				**60**	**15.0701**
	ENVI.T007.UG	AAS.Occupational Safety and Environmental Technology	C1			NW				24	15.0507
	ENVI.T008.UG	CRT.Water Resources Technician	C1			NW				20	15.0506
	OFTP.D002.UG	**AAS.Office Technology Professional**	**AAS**						**CN**	**60**	52.0407
	OFTP.T008.UG	OSA.Office Assistant	OSA						CN	10	52.0408
	OFTP.T005.UG	CRT.Administrative Specialist	C1						CN	27	52.0407
	OFTP.T006.UG	CRT.Applications Specialist	C1						CN	22	52.0407
	OFTP.T007.UG	CRT.Office Technology Specialist	C2						CN	44	52.0407
	OPTS.D001.UG	**AAS.Ophthalmic Technician**	**AAS**					**TR**		**60**	**51.1803**
	OPTS.T001.UG	CRT.Ophthalmic Assistant I	C1					TR		15	51.1803
	OPTS.T002.UG	CRT.Ophthalmic Assistant II	C2					TR		32	51.1803
	LEGA.D002.UG	**AAS.Paralegal Studies**	**AAS**		**NE**					**60**	**22.0302**
	LEGA.T002.UG	CAT.Paralegal Studies	ATC		NE					33	22.0302
	PTCT.T001.UG	**CRT.Patient Care Technician**	**C1**	**SO**				**TR**		**15**	**51.3902**
	PTHA.D001.UG	**AAS.Physical Therapist Assistant**	**AAS**					**TR**		**66**	**51.0806**
	PFPB.D001.UG	**AAS.Pipe Fitter**	**AAS**	**SO**						**60**	**46.0502**
	PFPB.T001.UG	CRT.Pipefitting - Basic	C1	SO						18	46.0502
	PFPB.T002.UG	CRT.Pipefitting - Advanced	C1	SO						20	46.0502
	ATPP.D004.UG	**AAS.Professional Pilot**	**AAS**			**NW**				**60**	**49.0102**
	ATPP.T005.UG	CRT.Commercial Pilot	C1			NW				39	49.0102
	RTVF.D001.UG	**AAS.Radio, Television and Film**	**AAS**		**NE**					**60**	**10.0202**
	RTVF.T002.UG	CRT.Sound Recording Technology	C1		NE					30	10.0202
	RTVF.T004.UG	CRT.Multimedia Production	C2		NE					39	10.0202
	RADT.D001.UG	**AAS.Radiologic Technology**	**AAS**					**TR**		**64**	**51.0911**
	RADT.T003.UG	CAT.Computed Tomography Advanced	ATC					TR		16	51.0911
	RADT.T005.UG	CAT.Magnetic Resonance Imaging Technology Advanced	ATC					TR		28	51.0911
	RADT.T007.UG	CAT.Vascular Interventional Radiography	ATC					TR		23	51.0911
	REAL.D001.UG	**AAS.Real Estate**	**AAS**		**NE**					**60**	**52.1501**
	REAL.T001.UG	CRT.Real Estate	C1		NE					16	52.1501
	DNTA.T001.UG	**CRT.Registered Dental Assistant**	**C1**		**NE**					**25**	**51.0601**
	RESP.D001.UG	**AAS.Respiratory Care**	**AAS**					**TR**		**66**	**51.0908**
	SIGN.D003.UG	**AAS.Sign Language Interpreting**	**AAS**					**TR**		**65**	**16.1603**
	SIGN.T005.UG	OSA.Conversational ASL for Health Care Workers	OSA					TR		13	16.1603
	SIGN.T002.UG	CRT.Basic American Sign Language Acquisition	C1					TR		16	16.1603
Revised	SIGN.T007.UG	CRT.Sign Language Communicator	C2					TR		30	16.1603
Revised	**SURG.D001.UG**	**AAS.Surgical Technology**	**AAS**					**TR**		**60**	**51.0909**
	NURS.T001.UG	**CRT.Vocational Nursing**	**C2**					**TR**		**45**	**51.3901**
	WELD.D001.UG	**AAS.Welding Technology**	**AAS**	**SO**		**NW**				**60**	**48.0508**
	WELD.T002.UG	CRT.Welding - Basic	C1	SO		NW				22	48.0508
	WELD.T003.UG	CRT.Welding - Advanced	C1	SO		NW				20	48.0508
Deactivated Programs											
Deactivated	ACCO.T003.UG	Accounting Clerk I	C1						CN	15	52.0302
Deactivated	ACCO.T006.UG	Basic Bookkeeper	OSA						CN	9	52.0302
The following programs are pending approval for deactivation from the TCC Board of Trustees, Texas Higher Education Coordinating Board (THECB), and Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). Effective September 1, 2026, new enrollments will not be accepted.											
	ARCH.D001.UG	Architectural Technology, AAS	AAS	SO						60	15.0101
	ARCH.T009.UG	Architectural Technology	OSA	SO						9	15.0101
	ARCH.T009.UG	Architectural CAD Operator	C1	SO						18	15.0101
	ARCH.T009.UG	Architectural Paraprofessional	C1	SO						30	15.0101
	SIGN.T006.UG	Educational Sign Language Interpreting	ESC					TR		6	16.1603
	ATPP.T006.UG	Flight Instructor	ESC			NW				6	49.0102
	GINS.T003.UG	Geographic Information Systems (GIS) Programmer	C1					TR		39	45.0702
	HORT.T007.UG	Horticulture Business Management	C2			NW				40	01.0601
	CSSC.T002.UG	IT: Computer Support Specialist (Customer Service/ Call Center/ Teleservice Operations	C1		SE					18	11.1006
	BMRK.T003.UG	Marketing	OSA					TR	CN	12	52.1401

Core Curriculum

In order to provide a solid foundation for students' education and to make transfer between colleges and universities as smooth and seamless as possible, each state-supported institution of higher education in Texas has adopted a core curriculum. Through the Texas Core Curriculum, students gain knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for learning.

1. Critical Thinking Skills to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. Communication Skills to include effective development, interpretation and expression of ideas through written, oral, and visual communication.
3. Empirical and Quantitative Skills to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
4. Teamwork to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
5. Social Responsibility to include intercultural competency, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.
6. Personal Responsibility to include the ability to connect choices, actions, and consequences to ethical decision-making.
7. Components of the core curriculum can be transferred in a block from Tarrant County College to another Texas public college or university to be substituted for the corresponding core curriculum of the receiving institution.

TCC designates core curriculum courses completed by a student on the official transcript. If a student satisfies all component areas, the statement "Texas Core Curriculum Completed (Month/Year)" will appear on the transcript. Students who transfer without completing the core curriculum receive academic credit for each of the courses they successfully completed in the TCC core curriculum.

The Associate of Arts, Associate of Arts in Teaching, Associate of Science, and Associate of Science in Engineering degrees include courses drawn from the core curriculum. A student concurrently enrolled at more than one institution of higher education should follow the core curriculum requirements in effect for the institution at which the student is classified as degree-seeking.

Tarrant County College has established the 42-semester-credit hour core curriculum listed below.

COMMUNICATION (CODE 010) - 6 HOURS

Composition

One three-credit-hour course

- ENGL1301 Composition I - Composition I

Speech and Communication Skills

One three-credit-hour course

- SPCH1311 Intro to Speech Communication- Introduction to Speech Communication
- SPCH1315 Public Speaking - Public Speaking
- SPCH1321 Business and Professional Comm - Business and Professional Communication

MATHEMATICS (CODE 020) - 3 HOURS

One three-credit-hour course

- MATH1314 College Algebra - College Algebra
- MATH1316 Plane Trigonometry - Plane Trigonometry
- MATH1324 Math Business/Social Sciences - Mathematics for Business and Social Sciences
- MATH1325 Calculus-Business/Soc Science - Calculus for Business and Social Sciences
- MATH1332 Contemporary Math - Quant Reas- Contemporary Mathematics (Quantitative Reasoning)
- MATH1342 Elementary Statistical Methods - Elementary Statistical Methods
- MATH2412 Pre-Calculus Math- Pre-Calculus Math
- MATH2413 Calculus I- Calculus I

LIFE AND PHYSICAL SCIENCES (CODE 030) - 6 HOURS *

Two four-credit-hour laboratory science courses

- BIOL1406 Biol Scien Maj I (Lec/Lab) - Biology for Science Majors I (Lecture + Lab)
- BIOL1407 Biol Science Maj II (Lec/Lab) - Biology for Science Majors II (Lecture + Lab)
- BIOL1408 Biol Non-Sci Maj I (Lec/Lab) - Biology for Non-Science Majors I (Lecture + Lab)
- BIOL1409 Biol Non-Sci Maj II (Lec/Lab) - Biology for Non-Science Majors II (Lecture + Lab)
- BIOL2401 Anatomy & Physiology I - Anatomy and Physiology I (Lecture + Lab)
- BIOL2402 Anatomy & Physiology II - Anatomy and Physiology II (Lecture + Lab)
- BIOL2406 Environmental Biol (Lec/Lab) - Environmental Biology (Lecture + Lab)
- BIOL2421 Microbiology Sci Maj (lec/lab) - Microbiology for Science Majors (Lecture + Lab)
- CHEM1405 Intro Chemistry I (Lec/Lab) - Introductory Chemistry I (Lecture + Lab)
- CHEM1411 General Chemistry I (Lec/Lab) - General Chemistry I (Lecture + Lab)
- CHEM1412 General Chemistry II - General Chemistry II (Lecture + Lab)
- CHEM2423 Organic Chemistry I (Lec/Lab) - Organic Chemistry I (Lecture + Lab)
- CHEM2425 Organic Chem II (Lec+Lab) - Organic Chemistry II (Lecture + Lab)
- GEOL1401 Earth Sc Non-Sci Mj (Lec/Lab) - Earth Science for Non-Science Majors I (Lecture + Lab)
- GEOL1402 Earth Sci Non-Sc II (Lec/Lab) - Earth Science for Non-Science Majors II (Lecture + Lab)
- GEOL1403 Physical Geology (Lec/Lab) - Physical Geology (Lecture + Lab)
- GEOL1404 Historical Geology (Lec/Lab) - Historical Geology (Lecture + Lab)
- GEOL1405 Enviro Science (lec/lab) - Environmental Science (Lecture + Lab)
- GEOL1445 Oceanography (Lec/Lab)- Oceanography (Lecture + Lab)
- GEOL1447 Meteorology (Lec/Lab)- Meteorology (Lecture + Lab)
- PHYS 1401 - College Physics I (Lecture + Lab)
- PHYS1402 College Physics II (Lec/Lab)- College Physics II (Lecture + Lab)
- PHYS1403 Stars and Galaxies (Lec/Lab)- Stars and Galaxies (Lecture + Lab)
- PHYS1404 Solar System (Lec/Lab) - Solar System (Lecture + Lab)
- PHYS1415 Physical Science I (Lec/Lab) - Physical Science I (Lecture + Lab)
- PHYS2425 University Physic I (Lec/Lab) - University Physics I (Lecture + Lab)
- PHYS2426 University Phys II (Lec/Lab) - University Physics II (Lecture + Lab)

LANGUAGE, CULTURE AND PHILOSOPHY (CODE 040) - 3 HOURS

One three-credit-hour course

- ENGL2322 British Literature I - British Literature I
- ENGL2323 British Literature II - British Literature II
- ENGL2327 American Literature I - American Literature I
- ENGL2328 American Literature II - American Literature II
- ENGL2332 World Literature I - World Literature I
- ENGL2333 World Literature II - World Literature II
- HIST2311 Western Civilization I - Western Civilization I
- HIST2312 Western Civilization II - Western Civilization II
- HIST2321 World Civilizations I - World Civilizations I
- HIST2322 World Civilizations II - World Civilizations II
- HUMA1301 Introduction to Humanities I - Introduction to Humanities I
- PHIL1301 Introduction to Philosophy - Introduction to Philosophy
- PHIL1304 Intro to World Religions - Introduction to World Religions
- PHIL2306 Introduction to Ethics - Introduction to Ethics
- PHIL2316 Classical Philosophy - Classical Philosophy
- SPAN2311 Intermediate Spanish I - Intermediate Spanish I
- SPAN2312 Intermediate Spanish II - Intermediate Spanish II

CREATIVE ARTS (CODE 050) - 3 HOURS

One three-credit-hour course

- ARTS1301 Art Appreciation - Art Appreciation
- ARTS1303 Art Hist I (Prehist - 14 cnt) - Art History I (Prehistoric to the 14th century)
- COMM2366 Film Appreciation - Film Appreciation
- DANC2303 Dance Appreciation - Dance Appreciation
- DRAM1310 Theater Appreciation - Theater Appreciation
- COMM2366 Film Appreciation - Film Appreciation
- HUMA1315 Fine Arts Appreciation - Fine Arts Appreciation
- MUSI1306 Music Appreciation - Music Appreciation
- MUSI1307 Music Literature - Music Literature
- MUSI1310 American Music - American Music

AMERICAN HISTORY (CODE 060) - 6 HOURS

Two three-credit-hour courses

Choose one from the following:

- HIST1301 United States History I - United States History I + **or**
- HIST2327 Mexican-American History I - Mexican American History I

  Choose one from the following:
- HIST1302 US History II Honors - United States History II **or**
- HIST2328 Mexican-American History II - Mexican American History II **or**
- HIST2301 Texas History - Texas History

GOVERNMENT AND POLITICAL SCIENCE (CODE 070) - 6 HOURS

Two three-credit-hour courses

- GOVT2305 Federal Government - Federal Government (Federal Constitution & Topics)
- GOVT2306 Texas Government - Texas Government (Texas Constitution & Topics)

SOCIAL AND BEHAVIORAL SCIENCE (CODE 080) - 3 HOURS

One three-credit-hour course

- ANTH2346 General Anthropology - General Anthropology
- ECON2301 Principles of Macroeconomics - Principles of Macroeconomics
- ECON2302 Principles of Microeconomics - Principles of Microeconomics
- GEOG1301 Physical Geography - Physical Geography
- GEOG1302 Human Geography - Human Geography
- GEOG1303 World Regional Geography - World Regional Geography
- PSYC2301 General Psychology - General Psychology
- SOCI1301 Introduction to Sociology - Introduction to Sociology

COMPONENT AREA OPTION (CODE 090) - 6 HOURS

Composition

One three-credit-hour course

Choose one from the following:

- ENGL1302 Composition II - Composition II + **or**
- ENGL2311 Technical & Business Writing - Technical and Business Writing.

Health and Wellness

One one-credit-hour course

- KINE1164 Intro Physcl Fitness/Wellness - Introduction to Physical Fitness and Wellness

Overflow (Extra) Hours *

Two semester-credit-hours

The two overflow (extra) semester-credit-hours are met by completing the Life and Physical Sciences requirement.

TOTAL SEMESTER HOURS: 42

** Taking two four-credit-hour laboratory science courses allows a student to earn eight semester-credit-hours; six of which are counted to meet the Life and Physical Sciences requirement. The other two semester-credit-hours are considered overflow (extra) hours and are used to complement the Component Area Option (Code 090) requirement.*

2026-2028 TCCD Program Inventory List

Program Type Definitions			
Course Numbering System			
AA - Associate of Arts	**AS** - Associate of Science	**AAT** - Associate of Arts in Teaching	**FOS** - Field of Study
AAS - Associate of Applied Science	**C1** - Level 1 Certificate	**C2**- Level 2 Certificate	**OSA** - Occupational Skills Award
ATC - Advanced Technical Certificate	**ESC** - Enhanced Skills Certificate		

PROGRAM STATUS	PROGRAM CODE	PROGRAM NAME	PROGRAM TYPE	CAMPUS						HOURS	CIP CODE
Transfer											
	AART.D006.UG	AA.Associate of Arts	AA	SO	NE	NW	SE	TR	CN	60	24.0102
	AART.D003.UG	AA.Associate of Arts in Music	AA	SO	NE	NW	SE	TR	CN	60	50.0901
Revised	AATE.D003.UG	AAT.Associate of Arts in Teaching (E-6)	AAT	SO	NE	NW	SE	TR	CN	60	13.1210
Revised	AATE.D006.UG	AAT.Associate of Arts in Teaching (Grades 7-12)	AAT	SO	NE	NW				60	13.1205
	ASCI.D001.UG	AS.Associate of Science	AS	SO	NE	NW	SE	TR	CN	60	24.0102
	ASCE.D006.UG	AS.Associate of Science in Engineering	AS				SE			60	14.0101
Field of Study											
	AFOS.F031.UG	FOS.Business Administration	FOS	SO	NE	NW	SE	TR	CN	24	52.0101
New	AFOS.F037.UG	FOS.Communications	FOS	SO	NE	NW	SE	TR	CN	18	09.0101
	AFOS.F024.UG	FOS.Criminal Justice	FOS		NE	NW		TR	CN	21	43.0104
	AFOS.F034.UG	FOS.Education (Early Childhood - 3 Core Subjects)	FOS	SO	NE	NW	SE	TR	CN	21	13.1206
	AFOS.F035.UG	FOS.Education (4-8 Core Subjects)	FOS	SO	NE	NW	SE	TR	CN	21	13.1206
	AFOS.F036.UG	FOS.Education (Early Childhood - 6 Core Subjects)	FOS	SO	NE	NW	SE	TR	CN	21	13.1206
	AFOS.F032.UG	FOS.History	FOS	SO	NE	NW	SE	TR	CN	21	54.0101
	AFOS.F015.UG	FOS.Nursing	FOS	SO	NE	NW	SE	TR	CN	34	51.3801
	AFOS.F029.UG	FOS.Psychology	FOS	SO	NE	NW	SE	TR	CN	18	42.0101
	AFOS.F016.UG	FOS.Social Work	FOS	SO	NE	NW	SE	TR	CN	15	44.0701
	AFOS.F033.UG	FOS.Sociology	FOS	SO	NE	NW	SE	TR	CN	21	45.1101
Career and Technical Education											
Revised	ACCO.D002.UG	AAS.Accounting Information Management	AAS						CN	60	52.0302
Revised	ACCO.T007.UG	CRT.Accounting Specialist I	C1						CN	30	2.0302
Revised	ACCO.T008.UG	CRT.Accounting Specialist II	C2						CN	45	52.0302
	ANES.D001.UG	AAS.Anesthesia Technology	AAS					TR		60	51.0809
	ARCH.D001.UG	AAS.Architectural Technology	AAS	SO						60	15.0101
	ARCH.T009.UG	OSA.Architectural Technology	OSA	SO						9	15.0101
	ARCH.T001.UG	CRT.Architectural CAD Operator	C1	SO						18	15.0101
	ARCH.T005.UG	CRT.Architectural Paraprofessional	C1	SO						30	15.0101
	AUTC.D001.UG	AAS.Automotive Collision Repair	AAS	SO						60	47.0603
	AUTC.T001.UG	CRT.Automotive Metal Repair	C1	SO						21	47.0603
	AUTC.T002.UG	CRT.Automotive Refinishing	C1	SO						21	47.0603
	AUTS.D001.UG	AAS.Automotive Service Technology	AAS	SO						60	47.0604
	AUTS.T003.UG	OSA.General Service Technician	OSA	SO						12	47.0604
	AUTS.T001.UG	CRT.Engine Analysis Technician	C1	SO						21	47.0604
	AUTS.T002.UG	CRT.Heavy Line Technician	C1	SO						29	47.0604
	AUTS.D002.UG	AAS.Automotive Service Technology-Toyota Technician Edu Net	AAS	SO						60	47.0604
	AUTS.T004.UG	CRT.Toyota General Service Technician	C1	SO						24	47.0604
	AUTS.T005.UG	CRT.Toyota Service Technician	C2	SO						45	47.0604
	AVIA.D002.UG	AAS.Aviation Maintenance Technology Airframe	AAS			NW				60	47.0607
	AVIA.T004.UG	CRT.Advanced Composite Technology	C1			NW				16	47.0607
	AVIA.T005.UG	CRT.Avionics Line Maintenance	C1			NW				30	47.0607
	AVIA.T001.UG	CRT.Aviation Maintenance Technology Airframe	C2			NW				45	47.0607
	AVIA.D003.UG	AAS.Aviation Maintenance Technology Powerplant	AAS			NW				60	47.0608
	AVIA.T002.UG	CRT.Aviation Maintenance Technology Powerplant	C2			NW				45	47.0608
	BACC.D001.UG	AAS.Business Administration - Accounting Assistant	AAS	SO	NE	NW	SE		CN	60	52.0302
	BACC.T001.UG	CRT.Accounting Assistant I	C1	SO	NE	NW	SE		CN	15	52.0302
	BACC.T002.UG	CRT.Accounting Assistant II	C1	SO	NE	NW	SE		CN	24	52.0302
	BACC.T003.UG	CRT.Accounting Assistant III	C2	SO	NE	NW	SE		CN	45	52.0302
	BBUS.D001.UG	AAS.Business Administration - Business	AAS	SO	NE	NW	SE	TR	CN	60	52.0101
	BBUS.T001.UG	CRT.Business I	C1	SO	NE	NW	SE	TR	CN	24	52.0101
	BBUS.T002.UG	CRT.Business II	C2	SO	NE	NW	SE	TR	CN	45	52.0101
	BESB.D001.UG	AAS.Entrepreneurship & Small Business Management	AAS		NE	NW			CN	60	52.0703
	BESB.T003.UG	OSA.Small Business Associate	OSA			NW				12	52.0701
	BESB.T001.UG	CRT.Entrepreneurship and Small Business Mangagement I	C1		NE	NW			CN	21	52.0701
	BESB.T002.UG	CRT.Entrepreneurship & Small Business Management II	C2		NE	NW			CN	45	52.0703
	BFSH.D001.UG	AAS.Business Administration - Fashion Merchandising	AAS		NE					60	52.1902
	BFSH.T003.UG	OSA.Fashion Sales Associate	OSA		NE					12	52.1902
	BFSH.T001.UG	CRT.Fashion Merchandising I	C1		NE					21	52.1902
	BFSH.T002.UG	CRT.Fashion Merchandising II	C2		NE					45	52.1902
	BMNG.D001.UG	AAS.Business Administration - Management	AAS	SO	NE		SE		CN	60	52.0201
	BMNG.T003.UG	CRT.Retail Management	C1		NE		SE		CN	24	52.0212
	BMNG.T001.UG	CRT.Management I	C1	SO	NE		SE		CN	24	52.0201
	BMNG.T002.UG	CRT.Management II	C2	SO	NE		SE		CN	45	52.0201
Revised	BMRK.D001.UG	AAS.Business Administration - Marketing	AAS					TR	CN	60	52.1401
Revised	BMRK.T004.UG	CRT.Digital Marketing	C1				SE	TR	CN	21	52.1404
Revised	BMRK.T005.UG	CRT.Social Media Marketing	C2				SE	TR	CN	45	52.1404
	SRCS.T001.UG	CRT.Central Sterile Processing	C1					TR		16	51.1012
	CHIL.D001.UG	AAS.Child Development	AAS		NE					60	19.0706
Revised	CHIL.T007.UG	CRT.After School Provider	C1		NE					26	19.0706
Revised	CHIL.T003.UG	CRT.Preschool Child Care Provider	C1		NE					30	19.0709
Revised	CHIL.T002.UG	CRT.Child Care Administration	C2		NE					39	19.0708
	CBCT.D001.UG	AAS.CADD-Building/Civil Technology	AAS	SO						60	15.1303
	CBCT.T001.UG	CRT.Building Technology	C1	SO						29	15.1303
	CBCT.T002.UG	CRT.Civil Technology	C1	SO						30	15.1304
	CMFT.D001.UG	AAS.CADD Technology - Manufacturing Technology	AAS	SO						60	15.0613
	CMFT.T003.UG	OSA.Basic CAD Technician	OSA	SO						14	15.1302
	CMFT.T002.UG	CRT.CNC Machinist Technology	C1	SO						25	48.0510
	CMFT.T001.UG	CRT.Manufacturing Technology	C2	SO						44	15.0613
	CONS.D003.UG	AAS.Construction Management Technology	AAS	SO						60	15.1001
	CONS.T004.UG	CRT.Construction Inspection Technician	C1	SO						19	15.1001
	CONS.T008.UG	CRT.Construction Management Technology	C1	SO						28	15.1001
	CRIM.D001.UG	AAS.Criminal Justice	AAS			NW				60	43.0104
	CRIM.T006.UG	OSA.Security Management	OSA			NW				9	43.0109
	CRIM.T003.UG	CRT.Basic Peace Officer Certification	C1			NW				24	43.0107
	CRIM.T007.UG	CRT.Criminal Justice and Policing	C1			NW		TR		24	43.0104
	CULI.D003.UG	AAS.Culinary Arts	AAS				SE			60	12.0503
	CULI.T007.UG	CRT.Culinary Arts I	C1				SE			18	12.0503
	CULI.T009.UG	CRT.Baking and Pastry	C1				SE			29	12.0503
	CULI.T006.UG	CRT.Catering/Private Chef	C2				SE			47	12.0503
	DENH.D001.UG	AAS.Dental Hygiene	AAS		NE					68	51.0602

	DMSO.D001.UG	AAS.Diagnostic Medical Sonography	AAS					TR		65	51.0910
	DEMR.T001.UG	**CRT.Diesel Technician**	**C1**	**SO**						**30**	**47.0605**
	LNWK.D001.UG	**AAS.Electrical Line Technician**	**AAS**	**SO**						**60**	**46.0303**
	LNWK.T001.UG	CRT.Ground Technician	C1	SO						25	46.0303
	LNWK.T002.UG	CRT.Line Technician	C2	SO						44	46.0303
	ELPT.T001.UG	**CRT.Electrician Helper**	**C1**	**SO**						**18**	46.0301
	ENGY.D001.UG	**AAS.Electronics Technology - Advanced Energy Technician**	**AAS**	**SO**						**60**	**15.1701**
	ENGY.T001.UG	CRT.Renewable Energy Technology	C1	SO						29	15.1701
	EROB.D001.UG	**AAS.Electronics Technology - Robotics and Automation**	**AAS**	**SO**						**60**	**15.0407**
	EROB.T001.UG	CRT.Mechatronics Technology	C1	SO						30	15.0407
	ETCM.T001.UG	CRT.Electronics Technology	C1	SO						23	15.0305
	EMER.D002.UG	**AAS.Emergency Medical Services**	**AAS**		**NE**					**60**	**51.0904**
	EMER.T003.UG	CRT.Emergency Medical Technician	C1		NE					18	51.0904
	EMER.T002.UG	CRT.Paramedic Program	C1		NE					33	51.0904
	FIRP.D001.UG	**AAS.Fire Protection Technology**	**AAS**			**NW**				**60**	**43.0201**
	FIRP.T003.UG	CRT.Basic Firefighter Certification	C1			NW				18	43.0203
Revised	**GINS.D001.UG**	**AAS.Geographic Information Systems**	**AAS**					**TR**		**60**	**45.0702**
Revised	GINS.T004.UG	CRT. Basic Geographic Information Systems Skills	C1					TR		20	45.0702
Revised	GINS.T005.UG	CRT.Geographic Information Systems Programmer	C2					TR		45	45.0702
	GRPH.D002.UG	**AAS.Graphic Communication**	**AAS**		**NE**					**60**	**10.0301**
	GRPH.T004.UG	CRT.Computer Graphics	C1		NE					36	10.0303
	GRPH.T006.UG	CRT.Photographic Retouching	C1		NE					15	10.0301
	HITT.D001.UG	AAS.Health Information Technology	**AAS**					**TR**		**60**	**51.0707**
	HCMG.D001.UG	AAS.Healthcare Management	**AAS**						**CN**	**60**	**52.0201**
	HCMG.T001.UG	CRT.Healthcare Management Specialist I	C1						CN	23	52.0201
	HCMG.T002.UG	CRT.Healthcare Management Specialist II	C2						CN	44	52.0201
	HEAT.D005.UG	AAS.Commercial HVAC/R Technician	**AAS**	**SO**						**60**	**15.0501**
	HEAT.T008.UG	OSA.HVAC Installer	OSA	SO						11	15.0501
	HEAT.T011.UG	CRT.HVAC/R Commercial Technician	C2	SO						51	15.0501
	HEAT.D006.UG	AAS.Residential HVAC/R Technician	**AAS**	**SO**						**60**	**15.0501**
	HEAT.T009.UG	CRT.HVAC Residential Technician I	C1	SO						23	15.0501
	HEAT.T010.UG	CRT.HVAC Residential Technician II	C1	SO						20	15.0501
Revised	**HORT.D001.UG**	**AAS.Horticulture**	**AAS**			**NW**				**60**	**01.0601**
Revised	HORT.T008.UG	OSA.Sustainable Food Crops	OSA			NW				13	01.0601
Revised	HORT.T005.UG	CRT.Plant Health Specialist	C1			NW				19	01.0601
Revised	HORT.T004.UG	CRT.Horticulture	C1			NW				31	01.0601
	HFSM.D001.UG	**AAS.Hospitality Management- Food Service Management**	**AAS**				**SE**			**60**	**52.0909**
	HFSM.T003.UG	CRT.Foodservice Operations	C1				SE			18	52.0909
	HFSM.T001.UG	CRT.Beverage Management I	C1				SE			22	52.0909
	HFSM.T002.UG	CRT.Beverage Management II	C2				SE			40	52.0909
	HTTM.D001.UG	**AAS.Hospitality Management-Hospitality/Travel & Tourism Mgt**	**AAS**				**SE**			**60**	**52.0909**
	HTTM.T001.UG	CRT.Hospitality/Hotel Supervision	C1				SE			16	52.0909
	HTTM.T002.UG	CRT.Hospitality/Travel & Tourism Supervision	C2				SE			43	52.0903
	HMEC.D001.UG	**AAS.Hospitality Management-Meeting/Evnt Plan/Conv & Grp Mgt**	**AAS**				**SE**			**60**	**52.0901**
	HMEC.T001.UG	CRT.Meeting & Evt Planning/Convention & Grp Mgmt	C1				SE			19	52.0901
	HRMG.D001.UG	**AAS.Human Resources Management**	**AAS**		**NE**				**CN**	**60**	**52.1001**
	HRMG.T001.UG	CRT. Human Resources Specialist I	C1	SO	NE	NW	SE		CN	24	52.1001
	HRMG.T002.UG	CRT. Human Resources Specialist II	C2		NE				CN	42	52.1001
	INMT.D003.UG	**AAS.Industrial Technician**	**AAS**	**SO**						**60**	**15.0612**
	INMT.T005.UG	CRT.Industrial Technician I	C1	SO						25	15.0612
	INMT.T006.UG	CRT.Industrial Technician II	C2	SO						42	15.0612
	CSSC.T002.UG	Information Technology: Computer Support Specialist (Customer Service/Call Center/Teleservice Operations)	C1				SE			18	11.1006
	ITCL.D001.UG	**AAS.Information Technology-Cloud Computing**	**AAS**		**NE**					**60**	**11.0902**
	ITCL.T001.UG	CRT.Information Technology-Cloud Computing I	C1		NE					30	11.0902
	ITCY.D001.UG	**AAS.Information Technology-Cybersecurity**	**AAS**	**SO**	**NE**	**NW**	**SE**	**TR**	**CN**	**60**	**11.1003**
	ITCY.T001.UG	CRT.Information Technology-Cybersecurity Specialist	C1	SO	NE	NW	SE	TR	CN	27	11.1003
	ITCY.T002.UG	CRT.Information Technology-Ethical Hacking	C2	SO	NE	NW	SE	TR	CN	47	11.1003
	ITGM.D001.UG	**AAS.Information Technology-Game/Simulation/Animation Design**	**AAS**	**SO**						**60**	**11.0204**
	ITGM.T003.UG	CRT.Information Technology-Animation for Game/Simulation	C1	SO						21	11.0204
	ITGM.T001.UG	CRT.Information Technology-Game/Simulation Programming I	C1	SO						20	11.0204
	ITGM.T002.UG	CRT.Information Technology-Game/Simulation Programming II	C2	SO						39	11.0204
	ITNS.D001.UG	**AAS.Information Technology-Network Support**	**AAS**	**SO**	**NE**		**SE**			**60**	**11.1001**
	ITNS.T001.UG	CRT.Information Technology-Cisco Support	C1	SO	NE		SE			16	11.1001
	ITNS.T002.UG	CRT.Information Technology-Information Technology Support	C1	SO	NE	NW	SE	TR		21	11.0103
	ITNS.T003.UG	CRT.Information Technology-Network Support	C2	SO	NE		SE			41	11.1001
	ITPG.D001.UG	**AAS.Information Technology-Programming**	**AAS**	**SO**	**NE**	**NW**	**SE**	**TR**	**CN**	**60**	**11.0201**
	ITPG.T001.UG	CRT.Information Technology-Programming I	C1	SO	NE	NW	SE	TR	CN	25	11.0201
	ITPG.T002.UG	CRT.Information Technology-Programming II	C2	SO	NE	NW	SE	TR	CN	30	11.0201
	ITWB.D001.UG	**AAS.Information Technology-Web Applications Programming**	**AAS**	**SO**	**NE**		**SE**	**TR**		**60**	**11.0202**
	ITWB.T001.UG	CRT.Information Technology-Web Applications Programming I	C1	SO	NE	NW	SE	TR		28	11.0202
	ITWB.T002.UG	CRT.Information Technology-Web Applications Programming II	C2	SO	NE	NW	SE	TR		31	11.0202
	LIBR.D001.UG	**AAS.Library Technician**	**AAS**					**TR**		**60**	**25.0301**
	LIBR.T001.UG	CRT.Library Technician	C1					TR		19	25.0301
	LOGI.D002.UG	**AAS.Logistics and Supply Chain Management**	**AAS**			**NW**				**60**	**52.0203**
	LOGI.T001.UG	CRT.Transportation Management	C1			NW				15	52.0209
	LOGI.T003.UG	CRT.Warehouse Management	C1			NW				15	52.0409
	LONG.T001.UG	**CRT.Long Term Care Administration**	**C1**					**TR**		**27**	**51.0718**
	MDCA.T001.UG	**CRT.Medical Assistant**	**C1**	**SO**				**TR**		**40**	**51.0801**
	MENT.D004.UG	**AAS.Mental Health and Human Services**	**AAS**		**NE**					**60**	**51.1502**
	MENT.T004.UG	CRT.Social Work	C1		NE					30	51.1502
	MENT.D005.UG	**AAS.Mental Health-Substance Abuse Counseling**	**AAS**		**NE**					**60**	51.1501
	MENT.T003.UG	CRT.Substance Abuse Counseling	C1		NE					24	51.1501
New	**SMTT.D001.UG**	**AAS.Microelectronics Nanomanufacturing**	**AAS**	SO						**60**	15.0616
New	SMTT.T001.UG	CRT.Microelectronics Technology	C1	SO						19	15.0616
New	SMTT.T002.UG	CRT.Vacuum Technology	C1	SO						19	15.0616
	NDTE.D002.UG	**AAS.Nondestructive Inspection, Testing and Evaluation**	**AAS**			**NW**				**60**	**15.0702**
	NDTE.T001.UG	CRT.Nondestructive Testing Technician	C1			NW				26	15.0702
	NDTE.T002.UG	CRT.Radiography Technician	C1			NW				19	15.0702
	NMTT.D001.UG	**AAS.Nuclear Medicine Technology**	**AAS**					**TR**		**60**	**51.0905**
	NURS.D003.UG	**AAS.Nursing**	**AAS**					**TR**		**60**	**51.3801**
Revised	**DIET.D003.UG**	**AAS.Nutrition and Dietetics**	**AAS**				**SE**			**60**	**51.3103**
Revised	DIET.T008.UG	OSA.Healthy Meal Planning	OSA				SE			10	51.3103
Revised	DIET.T006.UG	CRT.Nutrition Specialist I	C1				SE			16	51.3103

Revised	DIET.T009.UG	CRT.Dietary Manager	C1				SE			51.3103
Revised	DIET.T007.UG	CRT.Food and Nutrition Coach	C2				SE			51.3103
	ENVI.D003.UG	**AAS.Occupational Safety and Environmental Technology**	**AAS**			**NW**			**60**	**15.0701**
	ENVI.T007.UG	AAS.Occupational Safety and Environmental Technology	C1			NW			24	15.0507
	ENVI.T008.UG	CRT.Water Resources Technician	C1			NW			20	15.0506
	OFTP.D002.UG	**AAS.Office Technology Professional**	**AAS**					**CN**	**60**	52.0407
	OFTP.T008.UG	OSA.Office Assistant	OSA					CN	10	52.0408
	OFTP.T005.UG	CRT.Administrative Specialist	C1					CN	27	52.0407
	OFTP.T006.UG	CRT.Applications Specialist	C1					CN	22	52.0407
	OFTP.T007.UG	CRT.Office Technology Specialist	C2					CN	44	52.0407
	OPTS.D001.UG	**AAS.Ophthalmic Technician**	**AAS**				**TR**		**60**	**51.1803**
	OPTS.T001.UG	CRT.Ophthalmic Assistant I	C1				TR		15	51.1803
	OPTS.T002.UG	CRT.Ophthalmic Assistant II	C2				TR		32	51.1803
	LEGA.D002.UG	**AAS.Paralegal Studies**	**AAS**		**NE**				**60**	**22.0302**
	LEGA.T002.UG	CAT.Paralegal Studies	ATC		NE				33	22.0302
	PTCT.T001.UG	**CRT.Patient Care Technician**	**C1**	**SO**			**TR**		**15**	**51.3902**
	PTHA.D001.UG	**AAS.Physical Therapist Assistant**	**AAS**				**TR**		**66**	**51.0806**
	PFPB.D001.UG	**AAS.Pipe Fitter**	**AAS**	**SO**					**60**	**46.0502**
	PFPB.T001.UG	CRT.Pipefitting - Basic	C1	SO					18	46.0502
	PFPB.T002.UG	CRT.Pipefitting - Advanced	C1	SO					20	46.0502
	ATPP.D004.UG	**AAS.Professional Pilot**	**AAS**			**NW**			**60**	**49.0102**
	ATPP.T005.UG	CRT.Commercial Pilot	C1			NW			39	49.0102
	RTVF.D001.UG	**AAS.Radio, Television and Film**	**AAS**		**NE**				**60**	**10.0202**
	RTVF.T002.UG	CRT.Sound Recording Technology	C1		NE				30	10.0202
	RTVF.T004.UG	CRT.Multimedia Production	C2		NE				39	10.0202
	RADT.D001.UG	**AAS.Radiologic Technology**	**AAS**				**TR**		**64**	**51.0911**
	RADT.T003.UG	CAT.Computed Tomography Advanced	ATC				TR		16	51.0911
	RADT.T005.UG	CAT.Magnetic Resonance Imaging Technology Advanced	ATC				TR		28	51.0911
	RADT.T007.UG	CAT.Vascular Interventional Radiography	ATC				TR		23	51.0911
	REAL.D001.UG	**AAS.Real Estate**	**AAS**		**NE**				**60**	**52.1501**
	REAL.T001.UG	CRT.Real Estate	C1		NE				16	52.1501
	DNTA.T001.UG	**CRT.Registered Dental Assistant**	**C1**		**NE**				**25**	**51.0601**
	RESP.D001.UG	**AAS.Respiratory Care**	**AAS**				**TR**		**66**	**51.0908**
	SIGN.D003.UG	**AAS.Sign Language Interpreting**	**AAS**				**TR**		**65**	**16.1603**
	SIGN.T005.UG	OSA.Conversational ASL for Health Care Workers	OSA				TR		13	16.1603
	SIGN.T002.UG	CRT.Basic American Sign Language Acquisition	C1				TR		16	16.1603
Revised	SIGN.T007.UG	CRT.Sign Language Communicator	C2				TR		30	16.1603
Revised	**SURG.D001.UG**	**AAS.Surgical Technology**	**AAS**				**TR**		**60**	**51.0909**
	NURS.T001.UG	**CRT.Vocational Nursing**	**C2**				**TR**		**45**	**51.3901**
	WELD.D001.UG	**AAS.Welding Technology**	**AAS**	**SO**		**NW**			**60**	**48.0508**
	WELD.T002.UG	CRT.Welding - Basic	C1	SO		NW			22	48.0508
	WELD.T003.UG	CRT.Welding - Advanced	C1	SO		NW			20	48.0508
Deactivated Programs										
Deactivated	ACCO.T003.UG	Accounting Clerk I	C1					CN	15	52.0302
Deactivated	ACCO.T006.UG	Basic Bookkeeper	OSA					CN	9	52.0302
The following programs are pending approval for deactivation from the TCC Board of Trustees, Texas Higher Education Coordinating Board (THECB), and Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). Effective September 1, 2026, new enrollments will not be accepted.										
	ARCH.D001.UG	Architectural Technology, AAS	AAS	SO					60	15.0101
	ARCH.T009.UG	Architectural Technology	OSA	SO					9	15.0101
	ARCH.T009.UG	Architectural CAD Operator	C1	SO					18	15.0101
	ARCH.T009.UG	Architectural Paraprofessional	C1	SO					30	15.0101
	SIGN.T006.UG	Educational Sign Language Interpreting	ESC				TR		6	16.1603
	ATPP.T006.UG	Flight Instructor	ESC			NW			6	49.0102
	GINS.T003.UG	Geographic Information Systems (GIS) Programmer	C1				TR		39	45.0702
	HORT.T007.UG	Horticulture Business Management	C2			NW			40	01.0601
	CSSC.T002.UG	IT: Computer Support Specialist (Customer Service/ Call Center/ Teleservice Operations	C1		SE				18	11.1006
	BMRK.T003.UG	Marketing	OSA				TR	CN	12	52.1401

Important Dates

- Multi-Year Academic Calendar
- TCC Events Calendar
- Final Exam Schedule

- View 2025-2026 Academic Calendar

FALL 2026 IMPORTANT DATES	
April 20, 2026	Course Schedule for Fall Term 2026 Available on **MyTCCTrack**
April 27, 2026	Priority Registration Begins for Fall Term 2026
May 4, 2026	Open Registration Begins for Fall Term 2026
September 7, 2026	Labor Day Holiday (College Closed)
November 23-25, 2026	Hours of Operation: 8:00am - 5:00pm
November 23-29, 2026	Thanksgiving Holiday- Students/ Faculty (Non-Instructional days)
November 26-29, 2026	Thanksgiving Holiday - Staff (College Closed)
December 14, 2026- January 1, 2027	Winter Break (College Closed)

SPRING 2027 IMPORTANT DATES	
October 12, 2026	Course Schedule Available for Spring Term 2027 Available on **MyTCCTrack**
October 19, 2026	Priority Registration Begins for Spring Term 2027
October 26, 2026	Open Registration Begins for Spring 2027
January 18, 2027	Martin Luther King Holiday (College Closed)
March 15-19, 2027	Spring Break (college Closed)
May 15, 2027	Commencement

SUMMER 2027 IMPORTANT DATES	
March 8, 2027	Course Schedule for Summer Term 2027 Available on **MyTCCTrack**
March 22, 2027	Open Registration Beings for Summer Term 2027
May 31, 2027	Memorial Day Holiday (College Closed)
June 19, 2027	Juneteenth National Independence Day Holiday (College Closed)
July 5, 2027	Independence Day Holiday (College Closed)

Important Dates

Fall 2026

- Multi-Year Academic Calendar
- TCC Events Calendar
- Final Exam Schedule

Fall 2026

FALL 16-WEEK SESSION	
August 10, 2026	Admission Deadline for First-Time-in-College Applicants
August 13, 2026	Registration for Fall 16- Week Session Ends- Midnights
August 16, 2026	Last Day for 100% Refund for Fall 16-Week Session
August 17, 2026	Audit Registration for Fall 16-Week Session
September 1, 2026	Official Day of Record (Census Date) for Fall 16-Week Session
September 4, 2026	Last Day for 70% Tuition Refund for Fall 16-Week Session
September 14, 2026	Last Day 25% Tuition Refund for Fall 16-Week Session
November 19, 2026	Last Day to Drop a Class for Fall 16-Week Session
December 9, 2026	Final Exams and Classes End for Fall 16-Week Session
December 14, 2026	All Grades Due for Fall 16-Week Session

FALL 1ST 8-WEEK SESSION	
August 10, 2026	Admission Deadline for First-Time-in-College
August 13, 2026	Registration Ends for Fall 1st 8-Week Session - Midnight
August 16, 2026	Last Day for 100% Tuition Refund for Fall 1st 8-Week Session
August 17, 2026	Audit Registration for Fall 1st 8-Week Session
August 17, 2026	Classes begin for Fall 1st 8-Week Session
August 24, 2026	Official Day of Record (Census Date) for Fall 1st 8-Week Session
August 26, 2026	Last Day for 70% Tuition Refund for Fall 1st 8-Week Session
August 28, 2026	Last Day for 25% Tuition Refund for Fall 1st 8-Week Session
October 1, 2026	Last Day to Drop a Class for Fall 1st 8-Week Session
October 9, 2026	Final Exam and Classes End for Fall 1st 8-Week Session
October 12, 2026	All Grades Due for Fall 1st 8-Week Session

FALL 15-WEEK WEEKEND SESSION	
August 14, 2026	Admission Deadline for First-Time-in-College Applicants
August 17, 2026	Registration Ends for Fall 15-Week Weekend Session - Midnight
August 20, 2026	Last Day for 100% Refund for Fall 15-Week Weekend Session
August 21, 2026	Audit Registration for Fall 15-Week Weekend Session
August 21, 2026	Classes Begin for Fall 15-Week Weekend Session
September 4, 2026	Official Day of Record (Census Date) for Fall 15-Week Weekend Session
September 3, 2026	Last day for 70% Tuition Refund for Fall 15-Week Weekend Session
September 9, 2026	Last Day for 25% Tuition Refund for Fall 15-Week Weekend Session
September 5, 2026	Last Day to Drop a Class for Fall 15-Week Weekend Session
December 6, 2026	Final Exams and Classes End for Fall 15-Week Weekend Session
December 7, 2026	All Grades Due for Fall 15-Week Weekend Session

FALL 14-WEEK WEEKEND SESSION	
August 21, 2026	Admission Deadline for First-Time-in-College Applicants
August 24, 2026	Registration Ends for Fall 14-Week Weekend Session - Midnight
August 27, 2026	Last Day for 100% Tuition Refund for Fall 14-Week Weekend Session
August 28, 2026	Audit Registration for Fall 14-Week Weekend Session
August 28, 2026	Classes Begin for Fall 14-Week Weekend Session
September 11, 2026	Official Day of Record (Census Date) for Fall 14-Week Weekend Session
September 10, 2026	Last Day for 70% Tuition Refund for Fall 14-Week Weekend Session
September 14, 2026	Last Day for 25% Tuition Refund for Fall 14-Week Weekend Session
November 12, 2026	Last Day to Drop a Class for Fall 14-Week Weekend Session
December 6, 2026	Final Exams and Classes End for Fall 14-Week Weekend Session
December 7, 2026	All Grades Due for Fall 14-Week Weekend Session

FALL 1ST 7-WEEK WEEKEND SESSION	
August 21, 2026	Admission Deadline for First-Time-in-College-Applicants
August 24, 2026	Registration Ends for Fall 1st 7-Week Weekend Session - Midnight
August 27, 2026	Last Day for 100% Tuition Refund for Fall 1st 7-Week Weekend Session
August 28, 2026	Audit Registration for Fall 1st 7-Week Weekend Session
August 28, 2026	Classes Begin for Fall 1st 7-Week Weekend Session
September 3, 2026	Official Day of Record (Census Date) For Fall 1st 7-Week Weekend Session
September 3, 2026	Last Day for 70% Tuition Refund for Fall 1st 7-Week Weekend Session
September 5, 2026	Last Day for 25% Tuition Refund for Fall 1st 7-Week Weekend Session
October 1, 2026	Last Day to Drop a Class for Fall 1st 7-Week Weekend Session
October 11, 2026	Final Exams and Classes End for Fall 1st 7-Week Weekend Session
October 12, 2026	All Grades Due for Fall 1st 7-Week Weekend Session

FALL 12-WEEK SESSION	
September 7, 2026	Admission Deadline for First-Time-in-College Applicants
September 7, 2026	Registration Ends for Fall 1st 8-Week Session - Midnight
September 10, 2026	Last Day for 100% Tuition Refund for Fall 1st 8-Week Session
September 13, 2026	Audit Registration for Fall 1st 8-Week Session
September 14, 2026	Classes begin for Fall 1st 8-Week Session
September 14, 2026	Official Day of Record (Census Date) for Fall 1st 8-Week Session
September 24, 2026	Last Day for 70% Tuition Refund for Fall 1st 8-Week Session
September 29, 2026	Last Day for 25% Tuition Refund for Fall 1st 8-Week Session
October 2, 2026	Last Day to Drop a Class for Fall 1st 8-Week Session
December 3, 2026	Final Exams and Classes End for Fall 1st 8-Week Session
December 9, 2026	All Grades Due for Fall 1st 8-Week Session
December 14, 2026	

FALL 2ND 7-WEEK WEEKEND SESSION	
October 9, 2026	Admission Deadline for First-Time-in-College Applicants
October 12, 2026	Registration Ends for Fall 2nd 7-Week Weekend Session
October 15, 2026	Last Day for 100% Tuition Refund for Fall 2nd 7-Week Weekend Session
October 16, 2026	Audit Registration for Fall 2nd 7-Week Weekend Session
October 16, 2026	Classes Begin for Fall 2nd 7-Week Weekend Session
October 22, 2026	Official Day of Record (Census Date) for Fall 15-Week Weekend Session
October 22, 2026	Last Day for 70% Tuition Refund for Fall 2nd 7-Week Weekend Session
October 24, 2026	Last Day for 25% Tuition Refund for Fall 2nd 7-Week Weekend Session
November 19, 2026	Last Day to Drop a Class for Fall 2nd 7-Week Weekend Session
December 6, 2026	Final Exams and Classes End for Fall 2nd 7-Week Weekend Session
December 7, 2026	All Grades Due for Fall 2nd 7-Week Weekend Session

FALL 2ND 8-WEEK SESSION	
October 5, 2026	Admission Deadline for First-Time-in-College Applicants
October 8, 2026	Registration Ends for Fall 2nd 8-Week Session - Midnight
October 11, 2026	Last Day for 100% Tuition Refund for Fall 2nd 8-Week Session
October 12, 2026	Audit Registration for Fall 2nd 8-Week Session
October 12, 2026	Classes Begin for Fall 2nd 8-Week Session
October 19, 2026	Official Day of Record (Census Date) for Fall 2nd 8-Week Session
October 21, 2026	Last Day for 70% Tuition Refund for Fall 2nd 8-Week Session
October 23, 2026	Last Day for 25% Tuition Refund for Fall 2nd 8-Week Session
December 3, 2026	Last Day to Drop a Class for Fall 2nd 8-Week Session
December 9, 2026	Final Exams and Classes End for Fall 2nd 8-Week Session
December 14, 2026	All Grades Due for Fall 2nd 8-Week Session

Important Dates

Wintermester

- Multi-Year Academic Calendar
- TCC Events Calendar
- Final Exam Schedule

Wintermester 2026

WINTERMESTER	
December 4, 2026	Admission Deadline for First-Time-in-College Applicants
December 7, 2026	Registration Ends for Wintermester - Midnight
December 10, 2026	Last Day for 100% Tuition Refund for Wintermester
December 11, 2026	Audit Registration for Wintermester
December 11, 2026	Classes Begin for Wintermester
December 15, 2026	Official Day of Record (Census Date) for Wintermester
December 15, 2026	Last Day for 70% Tuition Refund for Wintermester
December 16, 2026	Last Day for 25% Tuition Refund for Wintermester
December 28, 2026	Last Day to Drop for Wintermester
December 29, 2026	Final Exams and Classes End for Wintermester
January 4, 2027	All Grades Due for Wintermester

Important Dates

Spring 2027

- Multi-Year Academic Calendar
- TCC Events Calendar
- Final Exam Schedule

Spring 2027

SPRING 16-WEEK SESSION	
January 11, 2027	Admission Deadline for First-Time-in-College Applicants
January 14, 2027	Registration Ends for Spring 16-Week Session - Midnight
January 18, 2027	Last Day for 100% Tuition Refund for Spring 16-Week Session
January 19, 2027	Audit Registration for Spring 16-Week Session
January 19, 2027	Classes Begin for Spring 16-Week Session
February 3, 2027	Official Day of Record (Census Date) for Spring 16-Week Session
February 8, 2027	Last Day for 70% Tuition Refund for Spring 16-Week Session
February 15, 2027	Last Day for 25% Tuition Refund for Spring 16-Week Session
April 29, 2027	Last Day to Drop a Class for Spring 16-Week Session
May 12, 2027	Final Exams and Classes End for Spring 16-Week Session
May 17, 2027	All Grades Due for Spring 16-Week Session

SPRING 1ST 8-WEEK SESSION	
January 11, 2027	Admission Deadline for First-Time-in-College Applicants
January 14, 2027	Registration Ends for Spring 1st 8-Week Session - Midnight
January 18, 2027	Last Day for 100% Tuition Refund for Spring 1st 8-Week Session
January 19, 2027	Audit Registration for Spring 1st 8-Week Session
January 19, 2027	Classes Begin for Spring 1st 8-Week Session
January 26, 2027	Official Day of Record (Census Date) for Spring 1st 8-Week Session
January 28, 2027	Last Day for 70% Tuition Refund for Spring 1st 8-Week Session
February 1, 2027	Last Day for 25% Tuition Refund for Spring 1st 8-Week Session
March 4, 2027	Last Day to Drop a Class for Spring 1st 8-Week Session
March 12, 2027	Final Exams and Classes End for Spring 1st 8-Week Session
March 15, 2027	All Grades Due for Spring 1st 8-Week Session

SPRING 1ST 7-WEEK WEEKEND SESSION	
January 22, 2027	Admission Deadline for First-Time-in-College Applicants
January 25, 2027	Registration Ends for Spring 1st 7-Week Weekend Session - Midnight
January 28, 2027	Last Day for 100% Tuition Refund for Spring 1st 7-Week Weekend Session
January 29, 2027	Audit Registration for Spring 1st 7-Week Weekend Session
January 29, 2027	Classes Begin for Spring 1st 7-Week Weekend Session
February 5, 2027	Official Day of Record (Census Date) for Spring 1st 7-Week Weekend Session
February 4, 2027	Last Day for 70% Tuition Refund for Spring 1st 7-Week Weekend Session
February 6, 2027	Last Day for 25% Tuition Refund for Spring 1st 7-Week Weekend Session
March 4, 2027	Last Day to Drop a Class for Spring 1st 7-Week Weekend Session
March 14, 2027	Final Exams and Classes End for Spring 1st 7-Week Weekend Session
March 15, 2027	All Grades Due for Spring 1st 7-Week Weekend Session

SPRING 15-WEEK WEEKEND SESSION	
January 15, 2027	Admission Deadline for First-Time-in-College Applicants
January 18, 2027	Registration Ends for Spring 15-Week Weekend Session - Midnight
January 21, 2027	Last Day for 100% Tuition Refund for Spring 15-Week Weekend Session
January 22, 2027	Audit Registration for Spring 15-Week Weekend Session
January 22, 2027	Classes Begin for Spring 15-Week Weekend Session
February 5, 2027	Official Day of Record (Census Date) for Spring 15-Week Weekend Session
February 4, 2027	Last Day for 70% Tuition Refund for Spring 15-Week Weekend Session
February 9, 2027	Last Day for 25% Tuition Refund for Spring 15-Week Weekend Session
April 22, 2027	Last Day to Drop a Class for Spring 15-Week Weekend Session
May 9, 2027	Final Exams and Classes End for Spring 15-Week Weekend Session
May 10, 2027	All Grades Due for Spring 15-Week Weekend Session

SPRING 14-WEEK WEEKEND SESSION	
January 22, 2027	Admission Deadline for First-Time-in-College Applicants
January 25, 2027	Registration Ends for Spring 14-Week Weekend Session - Midnight
January 28, 2027	Last Day for 100% Tuition Refund for Spring 14-Week Weekend Session
January 29, 2027	Audit Registration forSpring 14-Week Weekend Session
January 29, 2027	Classes Begin for Spring 14-Week Weekend Session
February 11, 2027	Official Day of Record (Census Date) for Spring 14-Week Weekend Session
February 10, 2027	Last Day for 70% Tuition Refund for Spring 14-Week Weekend Session
February 14, 2027	Last Day for 25% Tuition Refund forSpring 14-Week Weekend Session
April 22, 2027	Last Day to Drop a Class for Spring 14-Week Weekend Session
May 9, 2027	Final Exams and Classes End for Spring 14-Week Weekend Session
May 10, 2027	All Grades Due for Spring 14-Week Weekend Session

SPRING 12-WEEK SESSION	
February 8, 2027	Admission Deadline for First-Time-in-College Applicants
February 11, 2027	Registration for Spring 12-Week Session Ends - Midnight
February 14, 2027	Last Day for 100% Refund for Spring 12-Week Session
February 15, 2027	Audit Registration for Spring 12-Week Session
February 15, 2027	Classes Begin for Spring 12-Week Session
February 25, 2027	Official Day of Record (Census Date) for Spring 12-Week Session
March 2, 2027	Last Day for 70% Tuition Refund for Spring 12-Week Session
March 5, 2027	Last Day for 25% Tuition Refund for Spring 12-Week Session
May 6, 2027	Last Day to Drop a Class for Spring 12-Week Session
May 12, 2027	Final Exams and Classes End for Spring 12-Week Session
May 17, 2027	All Grades Due for Spring 12-Week Session

SPRING 2ND 7-WEEK WEEKEND SESSION	
March 19, 2027	Admission Deadline for First-Time-in-College Applicants
March 22, 2027	Registration Ends for Spring 2nd 7-Week Weekend Session - Midnight
March 25, 2027	Last Day for 100% Tuition Refund for Spring 2nd 7-Week Weekend Session
March 26, 2027	Audit Registration for Spring 2nd 7-Week Weekend Session
March 26, 2027	Classes Begin for Spring 2nd 7-Week Weekend Session
April 1, 2027	Official Day of Record (Census Date) for Spring 2nd 7-Week Weekend Session
April 1, 2027	Last Day for 70% Tuition Refund for Spring 2nd 7-Week Weekend Session
April 3, 2027	Last Day for 25% Tuition Refund for Spring 2nd 7-Week Weekend Session
April 29, 2027	Last Day to Drop a Class for Spring 2nd 7-Week Weekend Session
May 9, 2027	Final Exams and Classes End for Spring 2nd 7-Week Weekend Session
May 10, 2027	All Grades Due for Spring 2nd 7-Week Weekend Session

SPRING 2ND 8-WEEK SESSION	
March 15, 2027	Admission Deadline for First-Time-in-College Applicants
March 18, 2027	Registration Ends for Spring 2nd 8-Week Session
March 21, 2027	Last Day for 100% Tuition Refund for Spring 2nd 8 Weeks
March 22, 2027	Audit Registration for Spring 2nd 8-Week Session
March 22, 2027	Classes Begin for Spring 2nd 8-Week Session
March 29, 2027	Official Day of Record (Census Date) for Spring 2nd 8-Week Session
March 31, 2027	Last Day for 70% Tuition Refund for Spring 2nd 8-Week Session
April 2, 2027	Last Day for 25% Tuition Refund for Spring 2nd 8-Week Session
May 6, 2027	Last Day to Drop a Class for Spring 2nd 8-Week Session
May 12, 2027	Final Exams and Classes End for Spring 2nd 8-Week Session
May 17, 2027	All Grades Due for Spring 2nd 8-Week Session

Important Dates

Maymester

• Multi-Year Academic Calendar	• TCC Events Calendar	• Final Exam Schedule

Maymester 2027

MAYMESTER	
May 7, 2027	Admission Deadline for First-Time-in-College Applicants
May 10, 2027	Registration for Maymester Ends - Midnight
May 13, 2027	Last Day for 100% Tuition Refund for Maymester
May 14, 2027	Audit Registration for Maymester
May 14, 2027	Classes Begin for Maymester
May 18, 2027	Official Day of Record (Census Date) for Maymester
May 17, 2027	Last Day for 70% Tuition Refund for Maymester
May 18, 2027	Last Day for 25% Tuition Refund for Maymester
May 24, 2027	Last Day to Drop a Class for Maymester
May 26, 2027	Final Exams and Classes End for Maymester
May 31, 2027	All Grades Due for Maymester

Important Dates

Summer 2027

• Multi-Year Academic Calendar	• TCC Events Calendar	• Final Exam Schedule

Summer 2027

SUMMER 1ST 5-WEEK SESSION	
May 24, 2027	Admission Deadline for First-Time-in-College Applicants
May 27, 2027	Registration Ends for Summer 1st 5-Week Session
May 31, 2027	Last Day for 100% Tuition Refund for Summer 1st 5-Week Session
June 1, 2027	Audit Registration for Summer 1st 5-Week Session
June 1, 2027	Classes Begin for Summer 1st 5-Week Session
June 7, 2027	Official Day of Record (Census Date) 1st 5-Week Session
June 8, 2027	Last Day for 70% Tuition Refund for Summer 1st 5-Week Session
June 9, 2027	Last Day for 25% Tuition Refund for Summer 1st 5-Week Session
June 23, 2027	Last Day to Drop a Class for Summer 1st 5-Week Session
June 30, 2027	Final Exams and Classes End for Summer 1st 5-Week Session
July 5, 2027	All Grades Due for Summer 1st 5-Week Session

SUMMER 10-WEEK SESSION	
May 24, 2027	Admission Deadline for First-Time-in-College Applicants
May 27, 2027	Registration for Summer 10-Week Session Ends - Midnight
May 31, 2027	Last Day for 100% Tuition Refund for Summer 10-Week Session
June 1, 2027	Audit Registration for Summer 10-Week Session
June 1, 2027	Classes Begin for Summer 10-Week Session
June 21, 2027	Official Day of Record (Census Date) for Summer 10-Week Session
June 15, 2027	Last Day for 70% Tuition Refund for Summer 10-Week Session
June 21, 2027	Last Day for 25% Tuition Refund for Summer 10-Week Session
July 28, 2027	Last Day to Drop a Class for Summer 10-Week Session
August 5, 2027	Final Exams and Classes End for Summer 10-Week Session
August 9, 2027	All Grades due for Summer 10-Week Session

SUMMER 2ND 5-WEEK SESSION	
June 28, 2027	Admission Deadline for First-Time-in-College Applicants
July 3, 2027	Registration Ends for Summer 2nd 5-Week Session Ends - Midnight
July 6, 2027	Last Day for 100% Tuition Refund for Summer 2nd 5-Week Session
July 7, 2027	Audit Registration for Summer 2nd 5-Week Session
July 7, 2027	Classes Begin for Summer 2nd 5-Week Session
July 13, 2027	Official Day of Record (Census Date) for 2nd 5-Week Session
July 14, 2027	Last Day for 70% Tuition Refund for Summer 2nd 5-Week Session
July 15, 2027	Last Day for 25% Tuition Refund for Summer 2nd 5-Week Session
July 28, 2027	Last Day to Drop a Class for Summer 2nd 5-Week Session
August 5, 2027	Final Exams and Classes End for Summer 2nd 5-Week Session
August 9, 2027	All Grades due for Summer 2nd 5-Week Session

Dual Enrollment

Dual Credit

The Dual Credit Program at Tarrant County College (TCC) offers motivated high school students a powerful opportunity to earn both high school and college credit simultaneously. Courses may be taken at the student's high school or on a TCC campus, giving students early exposure to college-level academics in a supportive environment.

One of the key goals of TCC's Dual Credit initiative is to help students earn at least 15 college credit hours that count toward a certificate or degree pathway.

Dual Credit students follow the course offerings stipulated by the Tarrant County College course crosswalk established in collaboration with high school partners. The course crosswalks outline the approved coursework between institutions and establish protocols for reviewing courses offered for dual enrollment.

For more information about Dual Credit, visit the Dual Enrollment office at any of the TCC campuses.

Dual Credit

Dual Enrollment

Early College High School (ECHS)

Early College High School (ECHS) is a specialized program that provides high school students with a rigorous academic experience blending high school and college coursework. Participating in an ECHS, students can earn a high school diploma while simultaneously working toward a postsecondary credential—such as a certificate, associate degree, or up to 60 college credit hours applicable toward a baccalaureate degree.

ECHS campuses are typically located on or near college campuses, offering students direct access to college resources and a collegiate environment. In addition, ECHS campuses are open-enrollment high schools that are especially beneficial for students who may be underrepresented in higher education, providing a structured pathway to academic achievement and college success.

ECHS students follow the course offerings stipulated by the Tarrant County College course crosswalk in collaboration with high school partners. The course crosswalks outline the approved coursework between institutions and establish protocols for reviewing courses offered for dual enrollment.

For more information about ECHS, visit the Dual Enrollment office at any of the TCC campuses.

Dual Credit

Dual Enrollment

Pathways in Technology Early College High Schools (PTECH)

PTECH models are innovative, open-enrollment high school models designed to provide students—particularly those least likely to pursue college—with the opportunity to earn a high school diploma and a postsecondary credential and/or associate degree.

PTECH students engage in college-level coursework focused on Career and Technical Education (CTE), earning college credit hours that support workforce readiness.

The hallmark of the PTECH model is its career-centered approach, which integrates work-based learning experiences to prepare students for high-demand fields.

PTECH students follow the course offerings stipulated by the Tarrant County College course crosswalk in collaboration with high school partners. The course crosswalks outline the approved coursework between institutions and establish protocols for reviewing courses offered for dual enrollment.

Note: While many PTECH courses align with degree plans, some courses may not be eligible for transfer to specific institutions or degree programs. Students are encouraged to consult with academic advisors to ensure their coursework supports their long-term educational goals.

For more information about PTECH, visit the Dual Enrollment office at any of the TCC campuses.

Dual Credit

Dual Enrollment for Homeschool Students

Homeschooled students are eligible to participate in Tarrant County College's Dual Enrollment program, earning both high school and college credit. Students are encouraged to work toward at least 15 college credit hours to build a strong foundation for a certificate or degree.

To get started, homeschool students should make an appointment with their local Coordinator of Educational Partnerships and Career Advisor.

Dual Credit

Dual Enrollment Tuition

Effective Fall 2023, Tarrant County College (TCC) shall not charge tuition for eligible courses taken by high school students enrolled in a Dual Credit, Early College High School (ECHS), or Pathways in Technology Early College High School (P-TECH) program with a formal partnership agreement.

Eligible courses must appear in the program's Memorandum of Understanding (MOU) and in the approved Tarrant County College course crosswalk.

The expectation that students will work toward completing 15 or more college credit hours, a certificate, or an associate degree supports dual enrollment tuition.

Transfer of Credit

Transcript Evaluation

Students working toward a Tarrant County College (TCC) associate degree or certificate of completion will have prior transcripts automatically evaluated once all transcripts are on file. Students who have indicated they are not degree-seeking will not have automatic transcript evaluation but can change their intent by contacting an Admissions and Registrar Office. Transfer credit for students receiving federal financial aid and/or VA benefits must be evaluated; students cannot receive these types of aid for courses they have previously completed.

Students transferring to TCC can expect that approved academic courses earned at any Texas public institution will be accepted in transfer as long as a passing grade was earned and TCC has an equivalent course. Elective credit may be awarded when TCC does not offer an equivalent course in content or credit hours. Students who dispute a transfer credit evaluation decision made by TCC should contact the District Admissions and Records Office to request a review of the coursework involved.

Students planning to transfer TCC coursework to another college or university are advised to contact the transfer institution to determine its transfer policy. TCC has established transfer agreements with area colleges and universities. Campus Transfer Centers maintain transfer information provided by area institutions and help students with transfer planning.

Transfer to a College/University

Students attending Tarrant County College before transferring to a senior college or university will have the best experience in transferring credits if these steps are followed:

- Consider participating in one of the dual admission partnerships TCC participates in.
- Select a major field of study and a senior college or university that offers a bachelor's degree in that field.
- Review the selected institution's college catalog and identify the freshman and sophomore courses suggested.
- Understand that there may be limits on the number of TCC credit hours that can transfer to a senior institution.
- See a TCC career advisor or Transfer Center for help in selecting the TCC courses that correspond to the requirements of the senior college.
- Complete the TCC courses with a grade point average of at least 2.0 and a passing grade in each course intended to transfer (some senior institutions require a "C" grade or better for each course to transfer).
- Apply for admission to the senior college no later than the last semester at TCC.
- Request an official transcript be sent to the transfer institution at time of application and when all TCC final grades and credentials are posted to the TCC transcript.

Prior Learning Assessment

Prior Learning Assessment (PLA) is a process for assessing learning gained outside a traditional post-secondary academic environment. PLA includes learning acquired through standardized exams, military service and training, work experience, professional certifications and licenses, and non-credit courses. PLA evaluates what a student already knows at the college level derived from these experiences.

A student must meet the following requirements to be eligible for PLA credit:

- Complete at least one full semester (fall, spring, summer) at Tarrant County College, and

- Be enrolled at Tarrant County College during the semester credit is awarded; and
- Have successfully completed (grade of "C" or better) six semester credit hours at Tarrant County College prior to posting PLA credit.

Credit awarded through PLA does not satisfy the residency requirement toward graduation. The successful completion of any PLA will result in a grade of credit (CR) on the student's official record or transcript, which does not affect a student's grade point average.

A PLA fee of $25 per course is assessed to award credit. There is no PLA fee associated with Advanced Placement (AP), International Baccalaureate (IB) Diploma, military-related credit, or CE to UG cross-listed courses. Fees are charged in accordance with schedules set by TCC policy and/or commercial testing agencies.

Tarrant County College accepts the following methods for validating prior learning and awarding credit:

1. Standardized Exams
    - Advanced Placement (AP) - Students who took rigorous college-level work while in high school may receive credit if they have successfully completed the AP course exam with a score of "3" or higher.
    - College-Level Examination Program (CLEP) - Students who exhibit mastery of a college subject through a CLEP exam may receive credit.
    - International Baccalaureate Diploma - Students who have received the International Baccalaureate (IB) diploma may be eligible to receive up to 24 hours of transfer credit for courses completed with a minimum grade of four (4).
2. Credit-by-Examination/Experience (CBE)
    - Students who believe they already possess the knowledge and/or skills taught in certain courses or programs offered by the College may challenge these through credit-by-examination/experience. A request to challenge a course for credit may be based on achievement in the subject, non-traditional education, appropriate work, and/or other learning experiences. Credit-by-examination/experience is not available for all courses offered by TCC.
3. Professional Certifications and Licenses
    - Students who possess a current professional certification or license may request credit for eligible courses associated with the declared or intended program of study.
4. Continuing Education to Undergraduate (CE to UG)
    - Students may be eligible to earn academic (UG) credit for non-credit continuing education (CE) cross-listed courses taken at Tarrant County College.
5. Military Service/Training
    - Students may receive credit for military service who have a) graduated from a public or private high school accredited by a generally recognized accrediting organization, a Department of Defense high school, or earned a High School Equivalency diploma; and b) were honorably discharged after serving at least two years of service in the Armed Forces or were honorably discharged because of a disability.

To request credit, the military/veteran should submit a Joint Services Transcript (JST) to TCC for evaluation.

Admission to TCC

Tarrant County College (TCC) is an open-admission institution. This means any person can be admitted, regardless of their educational background. We do not require standardized tests such as the SAT or ACT, and there is no application fee.

However, foreign nationals who wish to study at TCC under the F-1 visa program have additional requirements which must be met before TCC can issue the federal document they need to apply for this visa. Learn about applying to TCC as an F-1 visa student.

TCC does not discriminate on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity or expression, age, disability, genetic information or veteran status in its application and admission processes, educational (including vocational) programs and activities, facilities, or employment policies, procedures and processes.

Students are encouraged to apply for admission using the online application through the TCC website. Applications may also be completed in person at any campus Admissions and Registrar Office.

Admission to Tarrant County College (TCC) does not guarantee acceptance into specific Selective Admission Programs. Students should consult the catalog, website, program brochure, program coordinator, campus Admissions and Registrar Office, or the Advising and Student Success Center for additional information concerning specialized program requirements.

Through its program of courses in developmental English and English as a Second Language, TCC seeks to ensure that a deficiency in English language skills will not be an obstacle to success in any educational program.

Tarrant County College reserves the right to refuse enrollment to any applicant/student who does not comply with College policy or procedures, or whose enrollment would be incompatible with the aims and objectives of the College, or whose presence on campus, in the judgment of the College, would not be in the best interest of the student or the College.

Admission Requirements for New Applicants

First-Time-in-College (FTIC) students will be required to submit the admissions application at least 7 calendar days prior to the start of the desired session to be considered for admission for that session.

1. **High School Graduate**. Graduates of accredited high schools who have not attended any regionally accredited college or university after graduation from high school will be admitted upon completion of an Admissions Application. TCC defines an accredited high school as a Texas high school authorized through the Texas Education Agency, the Texas Private School Accreditation Commission, the Southern Association of Colleges and Schools, or if located in a state other than Texas, that state's comparable agencies and/or regional accrediting association.
    - Applicants under the age of 22 must comply with state law concerning meningitis vaccination before registration will be allowed.
    - An official high school transcript or copy of a high school diploma should be submitted at the time of admission or within the first term of enrollment.
2. **Home School Graduate.** Graduates of home school will be admitted upon completion of an Admissions Application. TCC defines a home school as a school where the parent or guardian has been directly involved in the instructional process.
    - Applicants under the age of 22 must comply with state law concerning meningitis vaccination before registration will be allowed.
    - A transcript of high school work may be submitted at the time of admission or within the first term of enrollment.
3. **High School Equivalency.** An individual who has passed the General Education Development (GED) test or any other approved High School Equivalency credential will be admitted upon completion of an Admissions Application.
    - Applicants under the age of 22 must comply with state law concerning meningitis vaccination before registration will be allowed.
4. **College Transfer.** Transfer students who have attended another college or university prior to applying to TCC will be admitted upon completion of an Admissions Application.
    - Applicants under the age of 22 must comply with state law concerning meningitis vaccination before registration will be allowed.
    - These applicants are encouraged to provide official copies of all regionally-accredited transcripts before enrolling. Students who have attended a non-regionally accredited institution are encouraged to talk to an advisor about possible transfer credit.
    - Students receiving any type of financial assistance may be required to submit prior transcripts.
5. **Readmission.** Students who previously enrolled for undergraduate credit at TCC but have been away for 12 or more months do NOT need to reapply for admission - they should use the "Student Reactivation" link in the current student portal.

Special Admissions Processing:

1. **Dual Credit or Early College High School** – High school students who meet academic requirements may enroll in college courses prior to completion of their high school work. These students should start by completing the Admissions Application.
    - Dual Credit: Dual credit programs are college courses offered by TCC but taught in the high school classroom or on a TCC campus. Credits may satisfy both high school and college requirements. Students interested in taking these courses should seek assistance from their high school counselor.
    - Early College High School: These students are selected by participating school districts and should follow instructions provided by their school district about admission and registration.
      More information about dual enrollment admission is available on the TCC website and at each campus Admissions and Registrar Office. Need-based scholarships may be available for dual credit students who meet specific criteria. Information about scholarships is available at each campus Student Financial Aid Services Office.
2. **High School Graduation from a Non-Accredited High School** – Graduates from a non-accredited high school (schools not accredited as defined in item 1 or 2 above) may be admitted upon completion of an Admission Application.
3. **Individual Approval** – Students 18 years of age or older who are no longer in high school may be admitted by Individual Approval. Testing in basic skills and an advisor visit may be required. More information is available at each campus Admissions and Registrar Office.
4. **Specialized Admission Programs** – Students seeking admission to any specialized admission program must first be admitted to the College but may be required to submit additional specific documentation prior to consideration for admission by that program.

Determination of Residency

The state of Texas requires each student to be classified as a resident or nonresident of Texas (for tuition purposes) at the time of initial enrollment and after any break of enrollment for more than 12 months.

The student is responsible for registering under the proper residency classification. Any question concerning the right to classification as a resident of Texas or of Tarrant County should be clarified prior to enrollment at Tarrant County College.

Students needing additional information about residency determination should review Residency — TCC or contact a campus Admissions and Registrar Office. State requirements for residency may be found at My Texas Future: Adult & K12 Learner Resources for Schools & Careers or Texas Residency - Texas Higher Education Coordinating Board.

Appeal of Residency Determination

Students who have been classified as Out-of-County or Out-of-State may appeal that determination by first completing a new Residency Questionnaire and discussing their concerns with the campus Admissions and Registrar Office.

Reclassification of Residency Status

Students who have been classified as Out-of-County should request reclassification by the Admissions and Registrar Office if they establish residence in Tarrant County; proof of residence at a Tarrant County address (not a post office box) must be provided. Students who have been classified as Out-of-State should request reclassification by the campus Admissions and Registrar Office when their circumstances change in such a way as to meet state requirements. A Residency Questionnaire must be completed and submitted with the necessary documentation.

Bacterial Meningitis

The 82nd Texas Legislature approved Senate Bill 1107, which requires all new to TCC students under the age of 22 to submit evidence of being immunized against meningococcal meningitis. The meningitis vaccination (MCV4) requirement applies to:

- All first-time freshmen
- All new transfer students
- All returning TCC students who have experienced a break in TCC enrollment of at least one fall or spring term
- New and returning continuing education students enrolled in programs that require at least 360 contact hours for completion

A Meningitis Vaccination (MV) record administered within the five-year period immediately preceding and at least 10 days prior to the first semester enrolled or re-enrolled must be faxed, mailed, submitted through the current student portal, or submitted to the campus Admissions and Registrar Office. Acceptable documentation includes:

- Certification from a physician or clinic that the student has been vaccinated during the specified period.
- An immunization record from a state or local health authority or an official record received from school officials.
- A completed, signed, and dated copy of TCC's Bacterial Meningitis Vaccination Verification Form.

The following students are not required to submit an MV:

- Students who are 22 years of age or older
- Students taking only Distance Learning courses
- Continuing education students enrolled in a course or program that requires less than 360 contact hours for completion or in corporate training
- Students enrolled in a dual credit course taught at a public or private K-12 facility not located on a TCC campus
- Students with a signed affidavit or certificate from a physician that states the vaccination would be injurious to the health of the student
- Students who sign an affidavit stating that the student declines the MV for reasons of conscience, including a religious belief (valid for two years)
- TCC students incarcerated in a Texas prison

More information is available online at Texas Education Code Sec. 51.9192.

Continuing Students

Students who were enrolled at any TCC campus at any time during the last calendar year are eligible to register for the next future term UNLESS:

- they have an outstanding debt to TCC; or
- they have been placed on academic suspension/dismissal; or
- they have not yet complied with the state's law regarding meningitis vaccination; or
- they have been notified by the College about additional requirements or conditions.

Students returning to TCC after an absence of more than one year will be prompted to update demographic and academic information via a Reactivation Link in the current student portal prior to registration for classes and should contact the campus Admissions and Registrar Office or District Admissions and Records Office if they have lived outside Texas and/or out of Tarrant County since last enrolled. Students whose residency status has changed are responsible for additional tuition charges.

Admission to TCC

International Admissions

Non-Citizens with (or Seeking) a Visa

Non-U.S. citizen applicants holding any temporary visa category issued by the United States Citizenship and Immigration Services (USCIS) other than an F1 visa should file a regular application for admission. Some of these individuals may be eligible to pay in-state tuition per the Texas Higher Educational Coordinating Board.

Those interested in studying at TCC under the F-1 student visa program should complete the following steps:

1. Complete the International Student Application (start with the online ApplyTCC application, then contact the International Student Admissions and Compliance Office).
2. Provide transcripts: First-time college applicants must submit proof of completion of a United States (U.S.) high school diploma or equivalent if this education was completed outside of the United States. Transfer students must submit official transcripts from any U.S. institution they previously attended. For any type of non-U.S. high school credential, TCC accepts evaluations completed by an accepted agency. A list of acceptable evaluation services is available on request from the International Student Admissions and Compliance Office. An overall grade point average of at least 2.0 is required for students transferring from a college or university within the United States.
3. Applicants must demonstrate English language proficiency, either through completed US college coursework or by testing. Two tests are accepted:
    - Test of English as a Foreign Language (TOEFL) - A score of 71 or better is required.
    - International English Language Testing System (IELTS) - An overall band score of 5.5 or better is required.
4. Provide an original financial statement documenting adequate funds to cover expenses plus a bank endorsement of the availability of such funds. Amounts, instructions, and a form are provided by International Student Admissions and Compliance. Financial information must be current. All financial documents must be no more than six months old.
5. Provide a copy of current passport.

An F-1 visa student must maintain full-time status each fall and spring term. A student enrolled for 12 or more hours of 16-week courses during the fall or spring term is considered a full-time student. F1 students can utilize only one online class toward full-time status. F1 students who start in a summer term must maintain full-time status for the starting term as well as each fall and spring term thereafter.

Non-Citizens without a Visa

Non-U.S. citizens seeking TCC admission who do not hold a valid visa of any category are not required to meet international admission requirements.

1. Documented Immigrants - Permanent Residents and others with legal status to live, work and/or study in the U.S. must provide their card or proof of final approval for their status.
2. Undocumented Immigrants - Immigrants who do not have an I-551/I-151 or other USCIS approval may be eligible for enrollment on the same basis as documented students. More information is available at the campus Admissions and Registrar Office.

Admission to TCC

Right to an Academic Fresh Start

Under the provisions of the Texas Education Code, Section 51.931, a Texas resident applying for admission/reactivation to the College is entitled to have all TCC academic coursework that was earned 10 or more years prior to the requested enrollment date ignored for enrollment purposes and GPA computation. The applicant must complete the Right to an Academic Fresh Start Declaration Form with the campus Admissions and Registrar Office or the District Admissions and District Admissions and Records Office prior to registration, confirming the decision to enroll under the Academic Fresh Start statute.

Admission to TCC

Selective Admission Programs

Program costs and/or availability of facilities make it necessary for some programs to require specialized admission procedures in addition to those outlined above for general enrollment at the College. These procedures are designed to ensure fairness to each applicant in a limited enrollment program. Criteria for admission to these programs are listed with the respective program curricula.

- AAS.Anesthesia Technology
- AAS.Aviation Maintenance Technology Airframe
- CRT.Aviation Maintenance Technology Airframe
- AAS.Aviation Maintenance Technology Powerplant
- CRT.Aviation Maintenance Technology Powerplant
- CRT.Basic Firefighter Certification
- CRT.Basic Peace Officer Certification
- CRT.Central Sterile Processing
- CRT.Commercial Pilot
- CAT.Computed Tomography Advanced
- AAS.Dental Hygiene
- AAS.Diagnostic Medical Sonography
- AAS.Nutrition and Dietetics
- CRT.Dietary Manager
- AAS.Emergency Medical Services
- CRT.Emergency Medical Technician
- AAS.Health Information Technology
- CAT.Magnetic Resonance Imaging Technology Advanced
- CRT.Medical Assistant
- AAS.Nuclear Medicine Technology
- AAS.Nursing
- CRT.Paramedic Program
- AAS.Physical Therapist Assistant
- AAS.Professional Pilot
- AAS.Radiologic Technology
- CRT.Registered Dental Assistant
- AAS.Respiratory Care
- AAS.Sign Language Interpreting
- AAS.Surgical Technology
- CAT.Vascular Interventional Radiography
- CRT.Vocational Nursing

Admission to TCC

Transcript Requirements

Each transfer applicant should arrange for an official transcript to be sent to TCC from each accredited institution previously attended for credit coursework. Transcripts should be submitted prior to initial enrollment or as soon as possible during the first TCC term.

Credit for courses in which a passing grade has been earned may be transferred to Tarrant County College from colleges and universities accredited through one of the comprehensive accrediting associations. Elective credit may be awarded if TCC does not have an equivalent course in content or credit hours. The transcripts of degree-seeking TCC students will be automatically evaluated, usually within 2-4 weeks after submission of all transcripts.

Students who have attended an international college or university are not required to have their coursework evaluated. Credit for foreign coursework is very limited. Students are encouraged to discuss their goals with an advisor before paying for a foreign coursework evaluation.

Students concurrently attending TCC and any other college or university should submit an updated transcript from that institution at the end of each term of concurrent enrollment. In addition, all official transcripts must be on file before students may qualify for most financial aid programs, veterans' educational benefits, and other College services such as transcript evaluation and degree planning. Transcripts and other academic credentials provided to TCC will not be returned to the student.

Students who have gained proficiency through completion of coursework at a non-accredited institution or through other educational experiences should review options available through Prior Learning Assessment.

Registration

Current students who have completed admissions and onboarding requirements are eligible to register for classes. Registration services are available online and in-person. Registration assistance is provided on each campus through the Admissions and Registrar Office and the Student Success and Advising Centers.

MyTCCTrack is the online self-service student portal for accessing most student services. These online student services include options for students to view, plan, and register for classes.

Priority Registration

Priority registration is a week-long early registration period reserved for continuing TCC students.

Priority registration is offered for the Fall and Spring terms. Students enrolled in the Fall term are eligible for priority in the following Spring term; students enrolled in the Spring term are eligible for priority in the following Fall. Students who were not enrolled in the term immediately before the upcoming term are not eligible for priority registration.

A priority registration date and time is assigned to students, including parents of dependent children, based on the number of TCC hours a student has earned including developmental coursework and prior learning assessment credits. No priority registration is offered for the Summer term.

Registration opens for students who are not eligible for priority registration the Monday following the last day of priority registration. Registration for all sessions ends four days prior to the start of classes for that session.

Registration

Access to Online Services

Access to registration and all other online services is secured by each student's user ID and self-assigned Tarrant County College password. Registration and other services are available through the current student portal.

Registration

First-Time-in-College (FTIC) Students

First-Time-in-College (FTIC) students are students who have never attended a college or university. Students enrolled in a dual-credit program in high school and then graduated are still considered FTIC students when enrolled full-time at TCC. Admission steps for FTIC students are found on the TCC website.

Registration

Tuition Waivers and Exemptions

In addition to established financial aid programs, the state of Texas and Tarrant County College offer a number of opportunities that reduce or eliminate tuition.

Waivers allow certain students to pay the in-state (Texas resident) tuition rate even when their classification is non-resident or out-of-county Texas resident.

Exemptions cover all tuition and, in some cases, fees. The exemption will not cover the cost of digital materials. For most tuition exemptions, students must be eligible for Texas tuition rates. All exemption programs are authorized by the State of Texas, which also dictates their conditions. Most recipients are subject to the college's Satisfactory Academic Progress (SAP) requirement.

Students must submit required documentation to the Admissions and Registrar Office. Tuition must be paid by the established deadline if documentation or approval of an exemption or waiver is pending. Overpayments will be refunded only if documentation and approval are completed by the state-defined Official Day of Record unless otherwise noted. Students should contact the campus Admissions and Registrar Office for additional information. State exemption and waiver program information may be found at Texas Higher Education Coordinating Board - Exemptions and Waivers.

Registration

Auditing a Course

Students who have been admitted to the College may audit courses on a space-available basis. Audit registration may be requested only on the first day of any session, by contacting the appropriate campus Admissions and Registrar office. No college credit is awarded for audited courses. The cost for auditing courses is the same as registration for credit. Senior citizens (persons 65 years of age or older) may use the state-authorized tuition waiver to audit up to six credit hours of coursework in a term.

Audit students must meet the same prerequisites to enroll in a course as a credit student. However, they are not required to take examinations and no grades are assigned. Audit students are required to conform to the same conduct in the classroom and on campus as credit students.

Students already registered for credit may not change from credit to audit status during audit registration or at any time during the session. Students registered for audit may not change their enrollment to credit status during or following audit registration.

Texas Success Initiative (TSI)

Texas House Bill 286 created the Texas Success Initiative (TSI) to ensure that all new-to-college students are provided (1) assessment of their readiness for freshman-level academic coursework, (2) advisement and educational support necessary to assist students who are not ready to enroll in academic coursework, and (3) evaluation to determine when they are ready to enroll in college-level coursework.

The TSI was updated effective January 11, 2021. The Texas Success Initiative Assessment 2.0 (TSIA2) was revised and takes the place of the prior TSI Assessment. The Reading and Writing sections were combined into one English Language Arts Reading (ELAR) section. The TSIA2 Mathematics section remained a standalone assessment.

TSIA2 measures mathematics, reading, and writing skills to determine a student's readiness to enroll in entry-level freshman courses. Students are required to test and to be advised based on the results of their TSIA2 scores. Students will not be denied admission to Tarrant County College (TCC) based on TSIA2 or other college placement scores. Testing must be completed prior to enrolling in classes.

The required TSIA2 test is administered at the TCC Testing Centers on each campus. Testing appointments may be required, and a fee may be assessed. Test scores are usually available immediately following testing. Career advisors will assist students with score interpretation.

Students must complete a pre-assessment activity (PAA) prior to taking the TSIA2 Test.

Students should contact the campus Testing Services for additional information.

Free TSIA2 workshops may be offered by the campus tutoring centers to review test topics and provide practice for students retaking sections of the TSI Assessment. Students are encouraged to attend a TSIA2 Workshop and to retest.

Texas Success Initiative (TSI)

Testing Requirements for Restricted Courses

All TSI-liable students will be required to submit appropriate test scores before enrolling in college-level Mathematics, English, and/or Reading and Writing restricted courses. Successful completion of prerequisite courses may substitute for placement test scores. Testing requirements for specific courses are outlined in the course descriptions.

Texas Success Initiative (TSI)

Texas Success Initiative (TSI) Requirements for Career and Technical Education (CTE) Programs

All students enrolled in an associate degree program, or a Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). However, since students are not required to have achieved college readiness in order to graduate from high school, students enrolled in certain Level 2 certificate programs and associate of applied science (AAS) programs may or may not have the option to choose either a college-level mathematics or science course to meet degree or certificate requirements. If a non-mathematics option is chosen by the student, TCC's faculty content experts may determine that a student does not need to attain the mathematics college-readiness designation. The minimum levels of readiness are demonstrated through successful completion of those lower level or program-specific career-technical education courses.

More information about TSI requirements is available in the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Texas Success Initiative (TSI)

TSI Waivers and Exemptions

All students taking college-level courses must satisfy Texas Success Initiative Assessment 2.0 (TSIA2) requirements unless they qualify for a TSI waiver or exemption.

TSI Waivers and Exemptions apply only to TSIA2 requirements. Official documentation of eligibility for an exemption or waiver is required. Students should contact the campus Admissions and Registrar Office for additional information about TSIA2 requirements and restrictions, and to determine the specific documentation required.

Students who qualify for a TSI exemption are not required to test for TSI purposes and may not enroll in developmental coursework and/or interventions in the corresponding area of exemption and do not need to develop and follow an Academic Success Plan. All prerequisites for enrollment in specific courses must be met.

Waivers:

1. **Certificate Waiver** – Students pursuing a one-year certificate of completion of no more than 42 semester hours are exempt from all parts of TSIA2 testing and may enroll in any course required for that certificate. There may be courses in the certificate program that require placement testing.
2. **Casual Student Waiver** – Students who are not seeking a degree or certificate from a Texas public institution of higher education may qualify; enrollment may be restricted.
3. **English Language Learners Waiver** – Students who are not native speakers of English may request a waiver from TSIA2 testing to develop their academic English skills. Students will take an English Placement test instead to determine correct placement in ESOL courses. Students using this waiver will be required to take the TSIA2 after they attempt 15 credit hours of ESOL.
4. A student who has successfully completed college preparatory courses is eligible to receive a waiver for a period of 24 months from the date of high school graduation. Successful completion of College Prep English/Language Arts allows for a waiver for Reading and Writing. Successful completion of College Prep Math allows for a waiver for Math.

All TSI waivers must be renewed each term, and all course prerequisites must be met.

Exemptions:

- **Score Exempt** – Students who achieved certain scores on the ACT, SAT, GED, HiSET, or STAAR EOC test may be fully or partially exempt.
- **Degree Exempt** – Students who have earned an associate or higher degree from a regionally accredited post-secondary institution or from a recognized international institution.
- **Military Exempt** – Students serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or serving as a member of a reserve component of the armed forces of the United States.
- **Veteran Exempt** – Students who were honorably discharged, retired, or released from active duty as a member of the armed forces of the United States, the Texas National Guard, or serving as a member of a reserve component of the armed forces of the United States on or after August 1, 1990.
- **Course Exempt** – Students who have completed a restricted course from a regionally accredited college or university earning a grade of "C" or higher are exempt in the curricular area of that course.
- **Texas College Bridge (TCB) Exempt** – successful completion of the TCB course provides a TSI exemption in that content area effective for 24 months following the student's high school graduation (Texas Education Code 51.338).
- **Public Safety Officer and Employee Exempt** - Beginning Fall 2025, TSI exemptions are granted to certain Emergency Medical Services (EMS), fire personnel, and peace officers. Students should submit an employment letter to verify they qualify. Qualifications are listed below.
  EMS exemptions apply to students who are employed as Emergency Medical Services personnel and work for a political subdivision in Texas, including:
    - Emergency care attendants
    - Emergency medical technicians
    - Advanced emergency medical technicians
    - Emergency medical technicians-paramedics
    - Licensed paramedics

    Political subdivisions of Texas are county governments and other units of local government who provide basic services, including education, public safety, ambulances, water and electric utilities, and public transit. Employees of private companies are not eligible.

  Fire protection exemptions apply to students who are permanent, full-time employees of a local government who are designated as:
    - Fire and arson investigators
    - Aircraft rescue and fire protection personnel
    - Full-time fire department employees engaged in fire suppression, inspection, investigation, marine firefighting, or aircraft rescue and firefighting
    - Personnel involved in fire training, education, administration, or other duties related to fire prevention and suppression
      Fire department employees in administrative or clerical support roles, part time positions, and volunteer positions are not eligible.

  Peace Officer exemptions apply to students who are elected, appointed, or employed to serve as peace officers, including:
    - Sheriffs
    - Deputies
    - Constables
    - Municipal police officers

Peace officers must hold a permanent peace officer license. Private investigators and private security officers are not eligible.

- **Private or Out-of-State Transfer** – Students who transfer from a regionally accredited college or university and have earned a grade of "C" or higher in specific courses are exempt in the related TSI component. An official transcript must be submitted.

To be considered exempt for TSI Math, the student must have completed the equivalent to one of these courses with a grade of C or better:

MATH 1314 - College Algebra
MATH 1316 - Plane Trigonometry
MATH 1324 - Mathematics for Business and Social Sciences

MATH 1325 - Calculus for Business and Social Sciences
MATH 1350 - Mathematics for Teachers I
MATH 1351 - Mathematics for Teachers II
MATH 2305 - Discrete Mathematics
MATH 2318 - Linear Algebra
MATH 2320 - Differential Equations
MATH 2412 - Pre-Calculus Math
MATH 2413 - Calculus I
MATH 2414 - Calculus II
MATH 2415 - Calculus III

To be considered exempt on the Non-Algebraic Pathway for TSI Math, the student must have completed the equivalent to one of these courses with a grade of "C" or better:

MATH 1332 - Contemporary Mathematics (Quantitative Reasoning)
MATH 1342 - Elementary Statistical Methods

To be considered exempt for TSI English Language Arts and Reading (ELAR; also known as Integrated Reading and Writing), the student must have completed the equivalent to one of these courses with a grade of C or better:

ENGL 1301 - Composition I
ENGL 1302 - Composition II
ENGL 2322 - British Literature I
ENGL 2323 - British Literature II
ENGL 2327 - American Literature I
ENGL 2328 - American Literature II
ENGL 2332 - World Literature I
ENGL 2333 - World Literature II
GOVT 2305 - Federal Government (Federal Constitution & Topics)
GOVT 2306 - Texas Government (Texas Constitution & Topics)
HIST 1301 - United States History I
HIST 1302 - United States History II
PHIL 1301 - Introduction to Philosophy
PSYC 2301 - General Psychology
SOCI 1301 - Introduction to Sociology

Exemptions are permanent and do not need to be renewed each semester.

Texas Success Initiative (TSI)

Developmental Studies

Tarrant County College (TCC) considers the provision of a comprehensive program of developmental studies to be an integral part of its mission. Mandatory placement testing in the basic skills of mathematics, writing, and reading identifies students who are performing below college level. A range of options in each of the areas allows students to address and correct their deficiencies.

Students who score below specified levels of the TSIA2 will be required to enroll in developmental studies until they complete their program's required credit course or they achieve TSIA2 complete status via coursework or passing a TSIA2 retest in the same skill area.

A First-Time-in-College (FTIC) student assessed as needing additional help in any developmental skill area is required to be continuously enrolled in at least one required developmental program course or non-course based option until all program requirements are complete.

All students must have an Academic Success Plan by the end of their first term. More information about the Academic Success Plan is available at the campus Student Success and Advising Centers.

TCC students in developmental studies must register for a course or a non-course based option co-requisite course. A non-course based option (NCBO) is an educational intervention that uses learning approaches to prepare the student for college-level work. A co-requisite course refers to a developmental course paired with a credit transfer course.

The co-requisite model is an instructional strategy whereby a student is enrolled simultaneously in a developmental education course and/or intervention and a gateway course within the same semester. This allows a student sooner entry into and completion of their credit course requirements. The developmental component of the co-requisite provides support for the successful completion of the college-level credit course.

Developmental courses and NCBOs do not transfer as college credit to other colleges and universities, do not count as credit toward graduation requirements, and are not included in the calculation of the grade point average.

Students achieve TSI met status with successful completion in the college-level credit course and in developmental courses and NCBOs.

The following are non-course based options (NCBO):

- INRW 0114 Non-course Based Reading/Writing
- MATH 0132 - Coreq Contemporary Math
- MATH 0142 - Coreq Elementary Statistics
- MATH 0214 - Coreq College Algebra
- MATH 0224 - Coreq Math Business/Social Sciences

Placement in developmental courses is based on TSIA2 scores and, in some instances, on scores on other departmental tests. Additional information about state mandates is available at any campus Student Success and Advising Center.

The following courses are developmental:

- ESOL 0301 ESOL Oral Communication 1
- ESOL 0302 ESOL Oral Communication 2 f
- ESOL 0303 ESOL Oral Communication 3
- ESOL 0304 Grammar for Non-native Speakers 1
- ESOL 0305 Grammar for Non-native Speakers 2
- ESOL 0306 Grammar for Non-native Speakers 3
- ESOL 0307 ESOL Reading and Vocabulary 1
- ESOL 0308 ESOL Reading and Vocabulary 2
- ESOL 0309 ESOL Reading and Vocabulary 3
- ESOL 0310 Writing for Non-native Speakers 1
- ESOL 0311 Writing for Non-native Speakers 2
- ESOL 0312 Writing for Non-native Speakers 3
- INRW 0399 - Integrated Reading and Writing II
- STSC 0111 - Transition to College Success

Developmental Studies and corequisite models do not apply to Dual Enrollment (Dual Credit and ECHS/PTECH CCRSM Schools). Refer to the Dual Credit webpage.

Students achieve TSI met status with successful completion in the college-level credit course and in developmental courses and NCBOs.

Adult Education Courses

Adult education courses (MATH 0190 and INRW 0090) are designed for students who are assessed and need additional review or foundational material to increase success in developmental or college-level courses. Courses will follow the attendance policies and curricula are aligned with developmental education courses. Successful completion of an adult education course allows students to enroll in credit courses via co-requisite sections as described in the TSIA placement chart.

This is an Adult Education course and cannot be used to fulfill degree requirements or to qualify for federal aid, including VA educational benefits.

Texas Success Initiative (TSI)

Attendance in Developmental Courses

Students taking developmental Mathematics and/or Integrated Reading and Writing courses are required to attend class and to keep up with course assignments. Since attendance and participation are essential to student success, the following guidelines apply:

- A student in an on-campus course who misses 15 percent of the class meetings and is not successfully performing in the course may be withdrawn at the discretion of the instructor.

Texas Success Initiative (TSI)

English for Speakers of Other Languages (ESOL)

ESOL waivers apply to English Language Learners requesting to waive their Texas Success Initiative Assessment 2.0 (TSIA2). Students that apply for this waiver must be in agreement with the following guidelines set by the Texas Higher Education Coordinating Board (THECB).

1. Student is a non-native speaker of English who wishes to remediate before taking the TSIA2;
2. Student understands that he/she can take ESOL courses only while remediating; if a student elects to take the TSIA2 for mathematics and passes, he/she may enroll in math courses for which he/she is eligible;
3. Student understands that he/she must take the TSIA2 before he/she completes the 15th hour of ESOL developmental education;
4. Student will need to take the placement test in order to register for the correct level of ESOL.

For additional information regarding ESOL refer to the TCC website.

Texas Success Initiative (TSI)

Student Transition to College Success Course

Tarrant County College is committed to supporting students in meeting their educational goals by requiring a learning skills course (STSC0111 Transition to College Success) for students who are TSI-liable in at least one content area.

Transition to College Success is a non-degree credit, one-hour course. It is intended to be taken during a student's first term in college. TSI-liable students who do not register for STSC0111 Transition to College Success in their first term will have a hold placed on their registration for future terms.

Texas Success Initiative (TSI)

TSI Assessment 2.0 (TSIA2) Completion Requirements

A status of TSIA2 Compliant or Exempt in Mathematics and Integrated Reading/Writing is required to receive most degrees and some certificates of completion. To achieve this status, a non-exempt student must meet one of the following requirements for each skill area:

Mathematics

- Meet the TSIA2 with a College Readiness Classification (CRC) score of "950-990" **or**
- Meet the TSIA2 with a CRC score of "910-949" and a diagnostic level of "6" **or**
- Earn a grade of "C" or higher in one of the following entry-level college Math courses:

	11733 - Missing course	MATH1324 Math Business/Social Sciences	MATH1332 Contemporary Math - Quant Reas	MATH1342 Elementary Statistical Methods

- Students who are TSI met needing to take MATH 2412 (Pre-Calculus) or higher must have the required pre-requisite completed with a "C" or better or may choose to take the ALEKS PPL math placement exam. Contact assigned Career Advisor to discuss ALEKS PPL option and receive ALEKS PPL test referral. Only TSI Math Met students are eligible to take the ALEKS PPL exam.
- Students with a professionally diagnosed mathematics disability may contact Student Accessibility Resources on campus to discuss alternatives available for completion of the mathematics requirement.

Integrated Reading/Writing

- Meet the TSIA2 with a CRC score of "945-990" and an essay score of "5-8" **or**
- Meet the TSIA2 with a CRC score of "910-944" and diagnostic level of "5-6" and an essay score of "5-8" **or**
- Earn a grade of "C" or higher in one of the following courses:

	ENGL1301 Composition I	PSYC2301 General Psychology	SOCI1301 Introduction to Sociology

English for Speakers of Other Languages (ESOL)

- Meet the TSIA2 with a CRC score of "945-990" and an essay score of "5-8" **or**
- Meet the TSIA2 with a CRC score of "910-944" and diagnostic level score of "5-6" and an essay score of "5-8"

In addition, to the requirements above:

1. Students who passed a state-approved assessment test in any skill area and were enrolled in a regionally accredited college or university prior to August 26, 2013, are TSIA2 complete in the corresponding area.
2. Students transferring from a regionally accredited college or university who have completed one or more of the above-designated courses with a grade of "C" or higher will be considered TSI-satisfied in that curricular area. An official transcript from the transfer institution is required.
3. Students who earn a successful score in the NCBO co-requisite course and fail the college-level course do not obtain a TSIA Met status. They must repeat the course or obtain a college-ready score on the TSIA2.
4. Students whose previous Texas public college or university determined that they have met Minimum Passing Standards in Reading, Writing, and/or Math are met in the curricular area(s) indicated but must develop and pursue an Academic Success Plan in any remaining area(s).

Texas Success Initiative (TSI)

TSIA2 Placement Score Charts

Refer to the TSIA2 placement charts to see the TSIA2 College Readiness Classification CRC) placement scores.

For more information, students should consult the campus Student Success and Advising Center.

Texas Success Initiative (TSI)

- ESOL/ESL

ENGLISH LANGUAGE LEARNING PROGRAM (ELLP)

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL) TSIA2 COURSE PLACEMENT

TSIA2 COLLEGE READINESS CLASSIFICATION (CRC) 910-944 **AND**		
DIAGNOSTIC LEVEL	**ESSAY**	**COURSE PLACEMENT**
1 - 3	None	Refer to ESL Chart
4	1 - 8	**ESOL LEVEL 1:** ESOL 0301, ESOL 0304, ESOL 0307, ESOL 0310
5 - 6	1 - 4	**ESOL LEVEL 2:** ESOL 0302, ESOL 0305, ESOL 0308, ESOL 0311
5 - 6	5 - 8	**COLLEGE READY**

TSIA2 COLLEGE READINESS CLASSIFICATION (CRC) 945 - 990 **AND**	
ESSAY	**COURSE PLACEMENT**
1 - 2	**ESOL LEVEL 1:** ESOL 0301, ESOL 0304, ESOL 0307, ESOL 0310
3	**ESOL LEVEL 2:** ESOL 0302, ESOL 0305, ESOL 0308, ESOL 0311
4	**ESOL LEVEL 3:** ESOL 0303, ESOL 0306, ESOL 0309, ESOL 0312
5 - 8	**COLLEGE READY**

English Language Learners (ELLs) who need more time to refine their academic English skills may use the TSI Waiver. It limits students to ESOL and no other credit courses.

- Will be required to take the TSIA before they complete the 15th hour of ESOL.
- May take the Michigan English Placement Test (MEPT) to assess appropriate ESOL placement.
- TSI Waiver temporarily exempts students from TSI, Student Success course, and New Trailblazer Orientation.

Note: Dual enrollment students cannot participate in Developmental Studies, including co-requisite course models.

Contact the English Language Learning Program on your campus for more information.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL) MICHIGAN ENGLISH PLACEMENT TEST (MEPT) CUT-SCORES

ESOL COURSE #	**COURSE NAME**	**MEPT SCORES**
ESOL 0301	Oral Communication	35 - 41
ESOL 0302	Oral Communication	42 - 48
ESOL 0303	Oral Communication	49 - 55
ESOL 0304	Grammar	35 - 41
ESOL 0305	Grammar	42 - 48
ESOL 0306	Grammar	49 - 55
ESOL 0307	Reading & Vocabulary	35 - 41
ESOL 0308	Reading & Vocabulary	42 - 48
ESOL 0309	Reading & Vocabulary	49 - 55
ESOL 0310	Writing	35 - 41
ESOL 0311	Writing	42 - 48
ESOL 0312	Writing	49 - 55

Enrollment in the ESOL program requires:

1. Making the minimum score on the placement test **or**
2. Successful completion of Level 3 of Pre-Academic ESL or Level 5 of Workforce ESL

Contact the English Language Learning Program on your campus for more information.

PRE-ACADEMIC ENGLISH AS A SECOND LANGUAGE (ESL) MICHIGAN ENGLISH PLACEMENT TEST (MEPT) CUT-SCORES

NON-CREDIT ESL COURSE #	**LEVEL**	**COURSE NAME**	**MEPT SCORES**
ESLX 1010	Level 1	Low Beginning ESL	21 - 27
ESLX 1011	Level 2	High Beginning ESL	28 - 34
ESLX 1012	Level 3	Low Intermediate ESL	35 - 41

After successful completion of Level 3 of Pre-Academic ESL, students may continue with ESOL courses.

Contact the English Language Learning Program on your campus for more information.

WORKFORCE ENGLISH AS A SECOND LANGUAGE (ESL) MICHIGAN ENGLISH PLACEMENT TEST (MEPT) CUT-SCORES

NON-CREDIT ESL COURSE #	**LEVEL**	**COURSE NAME**	**MEPT SCORES**
COMG 1003	Basic	Communication Skills for the Workplace	0 - 6
COMG 1000	Level 1	Communication Improvement I	7 - 13
COMG 1001	Level 2	Communication Improvement II	14 - 20
COMG 1004	Level 3	Communication Improvement III	21 - 27
COMG 1005	Level 4	Communication Improvement IV	28 - 34
COMG 1045	Level 5	Advanced Workplace Communication	35 - 41

After successful completion of Workforce ESL Level 5, students may continue with ESOL courses.

Contact the English Language Learning Program on your campus for more information.

Texas Success Initiative (TSI)

- INRW

INTEGRATED READING / WRITING (INRW) COURSE PLACEMENT

TSIA2 COLLEGE READINESS CLASSIFICATION (CRC) 910 - 944 AND		
DIAGNOSTIC LEVEL	**ESSAY**	**COURSE PLACEMENT**
1 - 2	None	INRW 0190
3 - 4	1 - 3	INRW 0190
4	4 - 8	INRW 0399 + approved college-level course**
5 - 6	1 - 4	INRW 0399 + approved college-level course**
5 - 6	5 - 8	**COLLEGE READY**

TSIA2 COLLEGE READINESS CLASSIFICATION (CRC) 945 - 990 AND	
ESSAY	**COURSE PLACEMENT**
1 - 3	INRW 0399 + approved college-level course**
4	INRW 0114* **or** INRW 0399 + approved college-level course**
5 - 8	**COLLEGE READY**

** INRW 0114 is a non-course based option (NCBO), just-in-time support that prepares the student for college-level work.*
*** Approved college-level course includes ENGL 1301, PSYC 2301, or SOCI 1301.*

Note: Dual enrollment students cannot participate in Developmental Studies, including co-requisite course models.

Texas Success Initiative (TSI)

- Math

MATH **COURSE PLACEMENT**

TSIA2 COLLEGE READINESS CLASSIFICATION	**DIAGNOSTIC LEVEL**	**ALGEBRAIC**	**NON-ALGEBRAIC**
910 - 949	1 - 2		MATH 0190
	3		MATH 1332 & MATH 0132** **or** MATH 1342 & MATH 0142**
	4 - 5	MATH 1314 & MATH 0214** **or** MATH 1324 &MATH 0224**	MATH 1332 & MATH 0132** **or** MATH 1342 & MATH 0142**
	6	**COLLEGE READY** MATH 1314 or MATH 1324	**COLLEGE READY** MATH 1332 **or** MATH 1342*
950 - 990	N/A	**COLLEGE READY** MATH 1314 or MATH 1324	**COLLEGE READY** MATH 1332 **or** MATH 1342*

** TSI met in Reading and Writing is required for enrollment in MATH 1342.*
*** MATH 0132 = 1 hour NCBO for MATH 1332*
*** MATH 0142 = 1 hour NCBO for MATH 1342*
*** MATH 0214 = 2 hour NCBO for MATH 1314*
*** MATH 0224 = 2 hour NCBO for MATH 1324*
***Note:** Students who change from Non-Algebraic Pathway to Algebraic Pathway may be required to take additional developmental education coursework/intervention (TAC Rule Statute 4.58).*

Dual enrollment students cannot participate in Developmental Studies, including co-requisite course models.

Tuition and Fees

The Business Services office on each campus handles all payments for tuition, prior term balances, and miscellaneous fees and fines. Courses not paid by the payment due date will be dropped. Review options for payment.

Specific tuition and fee information, by degree and certificate, is available. Course learning materials may vary.

Students are responsible for declaring proper residency status through the Admissions and Registrar Office.

Tuition and Fees

Tuition Categories

The state of Texas has established legal guidelines to determine whether students are Legal Residents for Tuition Purposes. Residency status is determined at the time of application for admission to the College and can be updated when students meet and document a change of status. Assistance regarding residency classification is available at each campus Admissions and Registrar office. For additional information on rules and regulations determining residence status go to the Texas Higher Education Coordinating Board website.

Each student is assigned to one of three tuition categories:

- Legal resident of Tarrant County status is assigned to those who have lived in Texas under circumstances specified in Rules and Regulations, and who are residents of Tarrant County.
- Legal resident of another Texas County status is assigned to those who qualify for In-State status, but who do not reside in Tarrant County.
- Legal resident of other state/non-resident status is assigned to those who do not qualify for In-State status.

Tuition and Fees

Tuition

All tuition is subject to change without notice. Registration is not complete until payment has been made in full, third-party sponsorship is submitted, or a payment plan has been completed. Until all financial obligations to the College have been satisfied, students may not re-register or receive official transcripts or diplomas.

Effective for the **Spring 2024 through Fall 2024 terms**, undergraduate tuition rates at Tarrant County College will be as follows:

Residency Status for Tuition Purposes	**Per Semester Hour**
Legal resident of Tarrant County for tuition purposes	$69
Legal resident of any other Texas county for tuition purposes	$131
Legal resident of another state for tuition purposes	$310
Non-resident alien for tuition purposes	$310
Additional tuition charges for courses attempted three or more times (Third Attempt Rule effective starting Fall 2013)	$60

Effective for the **Spring 2025 term registrations**, undergraduate tuition rates at Tarrant County College will be as follows:

Residency Status for Tuition Purposes	**Per Semester Hour**
Legal resident of Tarrant County for tuition purposes	$74
Legal resident of any other Texas county for tuition purposes	$136
Legal resident of another state for tuition purposes	$315
Non-resident alien for tuition purposes	$315
Additional tuition charges for courses attempted three or more times (Third Attempt Rule effective starting Fall 2013)	$60

Tuition and Fees

Other TCC Charges/Fees*

In addition to tuition, students enrolled at TCC may be required to pay one or more of the following charges as applicable:

Academics	Charge
Course audit	Tuition rate
Other program charges/certifications	As assessed
Special program fees/deposits	As assessed
Special program background checks/drug screenings	As assessed
Special trips (field trips/national or international)	As assessed
TCC Plus (Digital Materials)/textbook rentals	As assessed
Identification (ID) and Permits	**Fees**
Parking permit	$0
Replacement parking permit	$5
Replacement Student ID (EasyRide pass)	$10
Fines and Fees	**Fees**
Copy Center fee	As assessed
Library fines	As assessed
Online outbound eTranscript request Online outbound Print and Mail Transcript request	$2.10 $4.60
Overnight outbound transcript request	$25 - $30
Parking fines	As assessed
Payment plan enrollment fee	$25
Replacement diplomas	$20
Returned payments (checks, ACH, debit/credit card transactions)	$25
Short-term loan fee	As assessed
Testing	**Fees**
TSI Assessment test	$29
TSI Assessment retest fee	$10 per section; $29 for all sections
Other testing	As assessed
Prior Learning Assessment (PLA)	$25 per course
***All charges are subject to change at any given time.**	

Continuing Education courses (CE): Refer to the Continuing Education Catalog for specific tuition information. Tuition for CE courses will be based on anticipated costs.

Tuition and Fees

Bookstore Charges

Bookstore Charges/Purchases Using Bookstore Credit Balance

Students with Anticipated Financial Aid are allowed to make purchases for books, supplies, and other educationally related goods at the TCC bookstore using their Bookstore Credit Balance during the Bookstore Credit Timeframe(s). Allowed purchases include course books/materials (excluding TCC Plus), required uniforms, school/course supplies, backpacks and electronics.

The Bookstore Credit Balance is based on Anticipated Financial Aid minus the term balance. Anticipated Financial Aid is defined as the amount of eligibility, based on the initial financial aid offer, enrollment intensity (actual number of hours), and the start date of each class. For classes that start after the first day of the term, this will appear 10 days before the class start date.

Students using the Bookstore Credit Balance for books, supplies, and other educationally related goods, are authorizing TCC to apply their financial aid disbursement towards the Bookstore Charges within their student account.

Any refunds for Bookstore Charges/Purchases using the Bookstore Credit Balance will be credited to the student's account, in accordance with the bookstore's refund policy, within 24-48 business hours. If this creates a refund balance on their account, the refund will follow the College's normal refund schedule.

The conditions concerning the Bookstore Charges/Purchases Using Bookstore Credit Balance can be found on the TCC website.

Tuition and Fees

Student Account Center

The Student Account Center is a student financial system designed to help students better manage their student account activity. Some of the features include payments by Automated Clearing House (ACH) or debit/credit card, payment plan enrollments, storing payment methods, or assigning authorized users. Students may access the Student Account Center by logging into their student account through MyTCCTrack and selecting the Student Account Center/Pay Now Helpful link. Please refer to the TCC website for the most updated information.

Tuition and Fees

Payment Methods

For the convenience of the student, several payment methods are available:

1. In person at a campus Business Services Office:

1. Cash
2. Major credit/debit cards: A photo id card is required for credit/debit card payments processed. Cardholder must be present.
3. Check: A driver's license is required for check payments. TCC will not accept checks as a form of payment for prior term balances or as a method of payment for previously returned items.
4. Third-Party Sponsors: If tuition is to be paid by an agency or company, a voucher from the agency or company must be submitted to the Business Services office in accordance with the payment deadline indicated below. By submitting a voucher, the third-party sponsor agrees to pay all tuition. This includes any non-refundable tuition. If a third-party sponsor has not paid the student's tuition, per the voucher, by the end of the next term/quarter, the unpaid tuition will be moved to the student's account. The student will be responsible for the unpaid balance, which may be sent to a third-party collection agency.
5. Texas Higher Education Coordinating Board Prepaid Tuition Programs: Required documentation for these programs should be submitted to the campus Business Services office in accordance with the payment deadline indicated below.

2. Online through the Student Account Center:

1. Major credit/debit cards
2. Automated Clearing House (ACH) or Electronic Check
3. Payment Plan: All payment plan options are in line with the provisions of Section 54.0007 of the Texas Education Code.
    1. Students can view and enroll by logging into MyTCCTrack and selecting Student Account Center.
    2. A $25 non-refundable enrollment fee is charged per plan for each term/quarter.
    3. A $25 Returned Item fee will be assessed per instance.

** Payment methods may be restricted due to Returned Payments, delinquent payment plans, or outstanding balances.*

Per Texas Education Code 54.007(2)(d): A STUDENT WHO FAILS TO MAKE FULL PAYMENT OF TUITION AND MANDATORY FEES, INCLUDING ANY INCIDENTAL FEES, BY THE DUE DATE, MAY BE PROHIBITED FROM REGISTERING FOR CLASSES UNTIL FULL PAYMENT IS MADE. A STUDENT WHO FAILS TO MAKE FULL PAYMENT PRIOR TO THE END OF THE SEMESTER OR TERM MAY BE DENIED CREDIT FOR THE WORK DONE THAT SEMESTER OR TERM. It is the student's responsibility to be aware of the tuition payment schedule for each term. The following table illustrates the Undergraduate tuition payment schedule by term. Payment schedules are subject to change. For the latest information, please visit the TCC website.

Courses with an earlier start date than the 16-week Fall/Spring term or the 1st 5-week session of the Summer term may have an earlier payment deadline than listed above. Financial Aid students are responsible for the payment of Maymester and Wintermester tuition. Reimbursement will come at a later date depending on financial aid eligibility.

Failure to pay tuition or to make payment arrangements by the deadline may result in students being dropped from their courses. Students should not assume that a course will be automatically dropped for nonpayment. Students are responsible for dropping any course they do not wish to be enrolled in.

Returned Payments

A Returned Payment (Chargeback) is the result of a dishonored or disputed check, ACH, or credit/debit card transaction. Returned Payments must be paid within 10 days of the return notification. Students will be notified by TCC email and/or US mail. If the Returned Payment balance and $25 Returned Payment fee are not paid within 10 days or by the current term census date (whichever comes first), the student **may** be dropped from all current term courses and blocked from future registrations. **Returned Payments may result in restrictions on payments by check, ACH, and credit/debit card, as well as loss of payment plan privileges.**

NOTICE: DELINQUENT INSTALLMENT CONTRACTS, UNPAID RETURNED PAYMENTS, OUTSTANDING MISCELLANEOUS CHARGES, AND FINANCIAL AID ADJUSTMENTS WILL BE SENT TO A THIRD-PARTY AGENCY FOR COLLECTION. THE STUDENT MAY BE RESPONSIBLE FOR ANY COLLECTION AGENCY FEES INCURRED FROM THE ADDITIONAL COLLECTION EFFORTS. A student who fails to make full payment prior to the end of the semester or term/quarter will be prohibited from registering for future classes until full payment is made. Failure to make full payment prior to the end of the term/quarter may result in transcript denial.

Formal Means of Communication

TCC Business Services will send notices to the student's myTCC email as the formal means of communication.

Tuition and Fees

Refund Policy

Students officially dropping and/or withdrawing, or dropped at the discretion of the instructor, during a regular 16-week session are eligible for a refund of tuition according to the following schedule.

Prior to the first calendar class day*	100%
During the first 15 calendar class days*	70%
During the 16th through 20th calendar class days*	25%
After the 20th calendar class day*	None

** For courses that meet on what the college considers a regular schedule, class days refer to the number of calendar days the institution normally meets for classes, not the days a particular course meets.*
*(**Example**: Term session is 1/16 – 5/10 and classes meet Tues/Thurs, beginning 1/17. The first "class day" is 1/16.)*

Students officially dropping and/or withdrawing, or dropped at the discretion of the instructor, from a regular five-week summer session are eligible for a refund of tuition and fees according to the following schedule.

Prior to the first calendar class day*	100%
During the first five calendar class days*	70%
During the sixth calendar class day*	25%
After the sixth calendar class day*	None

** For courses that meet on what the college considers a regular schedule, class days refer to the number of calendar days the institution normally meets for classes, not the days a particular course meets.*
*(**Example**: Term session is 1/16 – 5/10 and classes meet Tues/Thurs, beginning 1/17. The first "class day" is 1/16.)*

PLEASE NOTE

For non-regular semester-length courses, students should contact the campus Business Services office for refund schedules.

The following table illustrates how refunds would be determined for non-regular length courses.

Length of Class – Term in Weeks	Last day for 70% refund	Last day for 25% refund
2 or less	2	n/a
3	3	4
4	4	5
5	5	6
6	5	7
7	7	9
8	8	10
9	9	11
10	9	12
11	10	14
12	12	15
13	13	16
14	13	17
15	14	19

Refund of tuition is subject to change by legislative and/or TCC Board of Trustees action without notice.

- Based on the Refund Schedule, credit balances are automatically reflected on the student's account upon withdrawal or course cancellation.
- Refunds will be made to the debit/credit card used for payment if the refund is processed within 180 days of the original date of payment.
- Refunds for cash, check, ACH, debit/credit after 180 days of the original payment, will be processed using the student's preferred refund method selected with the contracted third-party refunding company. Please refer to the Refund Selection section below for further information. Students ages 15 years and under, or 55 years or older, will receive a refund by check.
- A refund may take up to six weeks to process.
- IMPORTANT NOTE: Financial Aid students withdrawing before the 60 percent refund point in the term may be required to repay funds unearned due to requirements for the return of Title IV funds.
- Refunds are calculated/based on invoiced amounts, not payments made.
- STUDENTS WHO HAVE OPTED FOR THE INSTALLMENT PAYMENT PLAN AND ARE DROPPING CLASSES AND/OR WITHDRAWING ARE RESPONSIBLE FOR THE FULL PAYMENT OF THE PROMISSORY NOTE. **REFUNDS WILL BE APPLIED TO ANY BALANCE DUE ON THE NOTE.**
- Students must be cautioned that there will be at least a 30 percent penalty for partial and/or complete withdrawals after the session begins.
- Students may request a review of their refund eligibility through the end of the next long semester for which the refund is requested, as shown on the chart below. Students who meet the Tuition Refund Request Guidelines may complete and submit the Tuition Refund Request Form found on the TCC website.

Term Requesting:	Submit By:
Fall	End of Next Spring Term
Summer	End of Next Fall Term
Spring	End of Next Fall Term

Financial Aid Refunds

A financial aid refund is the credit balance issued to a student of any remaining amount after their term balance is fully funded.

Students can expect to receive financial aid refunds after the class census date, if they have attended their classes. Details on purchasing books, supplies, and other educationally related goods are included in the Bookstore Charges/ Purchases Using Bookstore Credit Balance section, and conditions for receiving financial aid refunds are located on the TCC website.

Refund Selection

Students between the ages of 16-54, who are eligible for financial aid or have registered for classes, will receive a refund selection kit from our contracted third-party refunding company. In addition to the refund selection kit, students will receive an email containing a personal code. Students are provided with instructions on choosing their preferred refund method for future financial aid or course refunds. If a refund selection kit is not received, visit the Refunds webpage for additional information.

Tuition and Fees

Financial Responsibility Agreement

The Financial Responsibility Agreement (FRA) provides relevant information about the College's official financial policies and what is considered the responsibility of the student. Students will be asked to acknowledge the document every 120 days of accessing the online system. Students are encouraged to read the document to stay informed on the College's policies concerning areas such as tuition payment, past due balances, third party collections, refunds, Telephone Consumer Protection Act (TCPA), Family Educational Rights and Privacy Act (FERPA), and dual credit. Students may access the Financial Responsibility Agreement found in MyTCCTrack at any time.

Tuition and Fees

Tuition Agreement

Dallas College Students: A reciprocal tuition agreement allows a Dallas County resident to pay the Tarrant County resident tuition rate provided the individual is enrolled in a degree program not offered at Dallas College.

Tuition and Fees

Lost and Found

Lost and Found is located at each campus Business Services office. A Districtwide retention schedule is followed for the disposal of unclaimed items.

Tuition and Fees

Notary Services

Business Services offices provide notary services. Notaries will follow Chapter 87 of the Texas Administrative Code.

Student Financial Aid Services

TCC awards more than $118.9 million each year in financial aid.

Student Financial Aid Services

Introduction

There are many financial aid programs for students taking credit courses at TCC, including grants, scholarships, college work-study, and loans. The application used to determine eligibility for most financial aid programs is the Free Application for Federal Student Aid (FAFSA).

FAFSA applications are normally available in October. Students are encouraged to apply for financial aid as soon as possible after the availability date since funds for programs are limited and application delays are sometimes incurred because of data verification regulations. A student may apply electronically at https://studentaid.gov.

A priority funding deadline of March 1 has been established for supplemental grant funding that is available. All required applications must be submitted at least three weeks prior to the beginning of a registration period for funds to be available prior to classes beginning. If this is not the case, the student must be prepared to pay with personal funds.

Student Financial Aid Services

General Eligibility Requirements

Students applying for federal and state funds must meet certain eligibility requirements. To receive aid, the following general eligibility requirements must be met:

- Enroll, or be accepted for enrollment, in an associate degree or eligible credit certificate program (at least three hours of enrollment for most programs).
    - Financial Aid is only available for classes that are required for your eligible active academic program.
    - Note: Summer transient students (university students attending TCC for the summer only) are not eligible for aid at TCC because they are not pursuing a degree or certificate from TCC.
- Maintain satisfactory academic progress (SAP), including at least a 2.0 cumulative GPA, completing 67 percent of courses, and completing the academic program within 150 percent of the published program length. Students should contact Student Financial Aid Services for a complete copy of the SAP.
- Be either a U.S. citizen or an eligible non-citizen.
- Do not owe a refund on a federal loan or be in default on a federal educational loan.
- Have a high school diploma or high school equivalency.
- Have a valid Social Security Number.
- Not be incarcerated in a federal or state prison unless enrolled in an approved Prison Education Program (PEP).
- For most programs, demonstrate need as determined by the FAFSA.

Student Financial Aid Services

Required Applications

In addition to meeting the general eligibility requirements, approximately 30 percent of applicants are selected for a review in a process called verification. Students selected for verification will be required to submit a 2024 or 2025 IRS Tax Return Transcript (including parents' form if applicable) and an institutional verification form (IVF).

Approximately one to two weeks after receiving the FAFSA results and any other required documents, Student Financial Aid Services will email students an award offer notice detailing their eligibility for aid. The award offer will include details on award types, award amounts, and disbursement procedures. Award recipients may view their awards online at MyTCCTrack Financial Aid.

Student Financial Aid Services

Student Financial Aid Services Notices

Financial aid eligibility will be re-evaluated when enrollment changes occur through the official date of record of the latest course to start in a term. Students who drop hours during this time may have to repay part of their aid. Students who withdraw from ALL classes prior to the 60 percent point of a session may have to repay funds to TCC and the federal government. In addition, any student who does not begin attendance in a class will become ineligible for financial aid for the class. Students should consult with Student Financial Aid Services prior to making a change in course load.

Students are advised that all Student Financial Aid Services' communications are sent to the student's myTCC email account. Email should be checked regularly for communications from Student Financial Aid Services.

Campus Student Financial Aid Services may also be consulted for information about scholarship programs.

Student Financial Aid Services

Stars of Tomorrow Program

The Tarrant County College "Stars of Tomorrow" Program provides financial awards that more than cover the cost of tuition at TCC for Tarrant County high school graduates who are in the top half of their class and whose families meet specified income thresholds. Students in public and private schools as well as those who are home-schooled and meet the program's criteria are eligible. Funding for the program is a "package" comprised of state and federal financial aid and income from the earnings of an endowment derived from the leasing of mineral rights and other private sources. Complete eligibility requirements and application instructions are available on the TCC website.

Student Financial Aid Services

Contact Information

More information on financial aid programs at TCC is available online on the TCC website, through email at financial.aid@tccd.edu, or from campus Student Financial Aid Services. In compliance with the Higher Education Amendments of 1976, student consumer information is available on request from Student Financial Aid Services.

Student Financial Aid Services

Veterans' Educational Benefits

All persons who will be using educational assistance from the Department of Veterans Affairs (VA) while enrolled at TCC should complete a VA Certification Request in the current student portal as soon as initial admission requirements are met. Questions regarding eligibility and certification of VA educational benefits should be directed to the Admissions and Registrar Office. The Admissions and Registrar Office can answer questions about these benefits; the District Admissions and Records Office will certify enrollment to the VA and monitor degree plans and academic progress. Veterans can apply for a determination of eligibility for VA educational programs by accessing the VA website. Veterans/spouses/dependents receiving veterans benefits are responsible for complying with VA regulations.

Certification of VA benefits will be processed when all required documents are provided. Most VA benefits are paid based on enrollment (full-time, three-quarter-time, or at least half-time). The VA and TCC consider 12 hours to be full time during the fall and spring 16-week sessions and four hours to be full time during each summer session. Veterans receiving Post 9/11 GI Bill (Chapter 33) benefits must be enrolled for at least 51 percent of what is considered full-time to receive a monthly housing allowance. Chapter 33 veterans enrolling in 100 percent distance learning classes will receive only 50 percent of the housing allowance.

Veterans must complete and submit a request form for VA benefits each term. Students physically unable to complete the form online may contact their Admissions and Registrar Office for assistance. The request serves as the veteran's authorization to submit an enrollment certification to the VA. Each TCC campus has a veterans center where staff can provide guidance on these benefits.

Archived Student Handbook

Click on the links below to view archived Student Handbooks. (*link will open as a PDF file in a new window*)

- 2025-2026 Student Handbook (Archived)
- 2024-2025 Student Handbook (Archived)

Academic Standing

Academic Standing

Academic standing is based on a student's Grade Point Average (GPA) and determines the student's eligibility for many benefits including whether the student may continue to be enrolled in the College. It is the student's responsibility to determine and understand their academic status (good, probation, suspension, or dismissal) by checking their standing.

Good Standing – A student is in Good Standing by maintaining a cumulative GPA of 2.0 or higher.

Academic Probation – A student who fails to maintain a cumulative GPA of 2.0 or higher is placed on Academic Probation. The student may continue to enroll while on probation as long as a 2.0 semester GPA is earned.

Academic Suspension I – A student on academic probation who becomes ineligible to re-enroll is suspended from the College for not less than one long semester (the next fall or spring semester, including summer). As an option, the student may request an Academic Recovery Plan that allows the student to re-enroll with no more than seven credit hours, frequent sessions with a Senior Career Advisor, and the development of an action plan. After a student has served the first suspension, the student may continue to re-enroll by maintaining a semester GPA of 2.0 or higher. A student returning following Suspension I must consult with a Senior Career Advisor and remain on Suspension I until their cumulative GPA reaches 2.0 or higher.

Academic Suspension II – A student who does not meet the required standard for a second time and incurs a second academic suspension will be suspended for a period of one long semester (the next fall or spring semester; cannot enroll in summer sessions). A student returning from Suspension II must consult with a Senior Career Advisor to obtain permission for readmission.

Conditions of re-admission may include special requirements or restrictions. After advising, the student may be readmitted and have records reactivated by the campus Admissions and Registrar Office but remains on Suspension II until their cumulative GPA improves to 2.0.

Academic Dismissal – A student readmitted after the second suspension must maintain a semester GPA of 2.0 or higher or be placed on academic dismissal. A student on academic dismissal must remain out of TCC for a minimum of one calendar year (12 months). At the end of the initial dismissal period, the student can petition for readmission. Conditions of readmission may include special requirements and/or restrictions.

A student returning from academic dismissal must a) schedule an appointment with the campus Vice President for Academic Affairs (VPAA) or VPAA's designee for readmission approval, b) consult with a Senior Career Advisor for the development of an Academic Recovery Plan, and c) visit the campus Admissions and Registrar Office for reactivation.

Transfer to TCC Following Suspension at Another College/University: A student who has been placed on academic suspension or dismissal by another college or university must meet the same criteria as TCC students. Depending on the circumstances of the suspension, the Senior Career Advisor, Admissions and Registrar Office, or Vice President for Academic Affairs or designee may require an interview and/or may direct the applicant for additional review through campus channels. Conditions of admission may include special requirements and/or restrictions.

Academic Standing

Attendance Policy

Regular and punctual class attendance is expected at Tarrant County College. Student absences will be recorded from the first day the class meets. In case of absence, the student is responsible for contacting the instructor.

Students absent on official College business are entitled to make up coursework missed. In all other cases, the instructor will determine whether the student will be permitted to make up work and will decide on the time and nature of the makeup. The student is responsible for any work missed regardless of the cause of the absence. The student must discuss such work with the instructor and should do so immediately on returning to school. Communication between the student and instructor is most important, and it is the student's responsibility to initiate such communication. Students forfeit the opportunity to make up assignments if they do not appear at the prearranged time or meet the prescribed deadline for makeup work.

Students who stop attending class for any reason should officially withdraw from the class through the current student portal. Failure to officially withdraw may result in a failing grade for the course.

Class attendance and participation are essential to student success. The following attendance guidelines apply:

- A student in an on-campus course missing a cumulative of 15 percent of the class meetings **and** not keeping up with the course assignments may be dropped **at the discretion of the instructor.**
- A student in an online course is required to successfully complete the online course orientation **and** actively participate in the course as described in the Instructor's Course Requirements (ICRs). A student not meeting these requirements may be dropped **at the discretion of the instructor.**

Refer to Attendance in Developmental Courses for additional information.

Academic Standing

Classification of Students

A student who has earned fewer than 30 semester hours of college credit is classified as a freshman. A student who has earned 30 or more semester hours of credit is classified as a sophomore.

Academic Standing

Course Credit (Semester Credit Hour)

The semester credit hour is the unit of credit at Tarrant County College and is generally defined as the amount of credit given for one classroom hour per week for a given term length. Courses requiring laboratory and many special-purpose courses may require additional contact hours per credit hour.

Academic Standing

Course Load

A student enrolled for 12 or more semester hours during the fall or spring term is considered a full-time student. Special sessions of less than term length comprise a proportionate share of full-time or part-time enrollment. Students enrolled in a special session should consult the campus Admissions and Registrar to determine how special sessions might affect their enrollment status.

The normal course load for the fall or spring semester shall be 15 semester hours. Course loads in excess of 18 semester hours or six academic courses shall require approval by the Vice President for Academic Affairs or VPAA's designee. The maximum course load shall be no more than 24 semester hours.

The normal course load for a summer session shall be six semester hours for each session (summer 1 or summer 2) or 12 semester hours for a full summer semester. The maximum course load for a summer session shall be seven semester hours for each session (summer 1 or summer 2) or 14 semester hours for a full summer semester.

A Maymester is considered part of the summer semester, and the maximum course load for a Maymester shall be three semester hours. Course loads in excess of seven semester hours per session or 14 semester hours per summer semester, excluding Maymester hours or 17 semester hours per summer semester including Maymester hours, shall require approval by the Vice President for Academic Affairs or the VPAA's designee.

The Wintermester is considered part of the spring term.

The College reserves the right to limit the course load of a student.

Students who are employed or who plan to seek employment are cautioned to carefully consider the amount of college work they attempt in relation to the number of hours they are employed each week. Consideration should also be given to the student and community activities in which they participate. Students who overload themselves in these areas are likely to have scholastic difficulties. A good rule to remember is two hours of preparation outside of class are necessary for each hour of class time.

Academic Standing

Deans' List

The Deans' List includes those students who have completed 12 or more college-level semester hours of work for the term with a grade point average of 3.5 or higher. The Honors List includes those students who have completed 12 or more college-level semester hours for the term and with a grade point average of 3.0 to 3.49. The Merit List includes students who have completed fewer than 12 college-level semester hours in each of two consecutive terms, whose enrollment totals no fewer than 18 hours for the two terms, and whose grade point average for the two terms is 3.5 or higher.

Academic Standing

Drops or Withdrawals

A student may withdraw from a course or from the College until the last day to drop as noted in the Academic Calendar. Courses dropped on/or before the Official Day of Record (census date) do not earn any grade and do not appear on the student's transcript. Courses dropped after the Official Day of Record will receive a grade of "W" and will appear on the student's transcript. A student whose first college enrollment occurred in Fall 2007 or later may not drop more than six courses during their cumulative enrollment at any Texas public college or university.

A student enrolled in special session courses (i.e. eight-week courses, late start courses, mini-terms, summer sessions, etc.) should be advised of the withdrawal deadline by the instructor or contact the campus Admissions and Registrar Office.

A student may withdraw from courses prior to the last day to drop through the current student portal, or by contacting the campus Admissions and Registrar Office in person during business hours. Withdrawing from classes may affect a student's Financial Aid status. A student who withdraws is responsible for verifying the drop processing was completed by viewing the unofficial transcript or student schedule. Until a student is officially withdrawn, the student remains on the class roll and may receive a grade of "F" for the course.

A student unable to withdraw in person or electronically may mail, email, or fax a letter to the campus Admissions and Registrar Office specifying the class or classes for which withdrawal is requested. The letter must include the student's name, ID number, date, and class information along with the student's signature. If mailed, the request for withdrawal must be postmarked on or before the last day to drop a class, or if faxed, the date shown on the fax confirmation must be on or before the last day to drop a class. Email requests must come from the student's TCC email account.

Academic Standing

Six Drop Limit Regulation

Section 51.907 of the Texas Education Code, enacted by the State of Texas, Spring 2007, applies to students who enroll in a Texas public institution of higher education as a first-time freshman in Fall 2007 or later.

The College may not permit a student to drop more than six courses, including those taken at another Texas public institution of higher education. All courses dropped after the Official Day of Record are included in the six-course limit unless (1) the student withdraws from all courses or (2) the drop is authorized by the Vice President of Student Affairs as an approved Drop Exception. The official day of record for an undergraduate regular term course is the 12th class day (census date). Refer to the Academic Calendar for all census dates, including other than regular terms.

Drop Exceptions can be approved by the Vice President of Student Affairs if the student documents one of the following:

1. The student, a member of the student's family, or a person of equally important relationship to the student experiences a serious illness or other debilitating condition;
2. The student becomes responsible for the care of a sick, injured, or needy person;
3. There is a death in the student's family or of a non-family member of equally important relationship;
4. The student or a member of the student's family, or a person of equally important relationship to the student, is called to active duty service as a member of the Texas National Guard or the Armed Forces of the United States;
5. There is a documented change of the student's work schedule that is beyond the student's control.
6. The course is dropped while the student is still in high school.

After a student drops a course, they may request a Drop Exception Request in the current student portal. Requests can be submitted no later than 30 days after the end of the term.

Enrollment and drop activities of students affected by this legislation will be monitored. Those who drop six or more courses without an approved Drop Exception will incur registration restrictions and will need to consult a career advisor before dropping future courses during all subsequent terms and may incur other enrollment limitations or requirements.

TCC students liable under this legislation who plan to attend another Texas public college or university should determine that institution's policies and penalties for dropping courses and for approving Drop Exceptions.

Academic Standing

Final Assessments

TCC publishes a schedule for final assessments each term. A student who must be absent from a final assessment activity should petition the faculty member to request permission and approval with final review by the Academic Dean to reschedule the assessment. A student absent without permission from a final assessment activity will be graded zero on the assessment.

Other assessments will be scheduled during the course of the term at the discretion of the instructor. Makeup of a test other than the final assessment will be at the discretion of the instructor if a student is absent on the day of the test.

Academic Standing

Grades and Grade Points

The grading system used at Tarrant County College is as follows:

A (excellent)
B (good)
C (average)
D (passing)*
F (failure)
I (incomplete)
W (approved withdrawal)
CR (credit)
NC (noncredit)
AU (audit)
WA (audit withdrawal)

** Grade of "D" is not transferable to other institutions. In addition, a grade of "D" is not considered passing in developmental courses.*

The grade point average (GPA) is found by dividing the total number of grade points by the total number of semester hours attempted. Grades of CR, NC, W, I, AU, or WA or grades earned for work in developmental courses do not affect the grade point average.

A: 4 points per semester hour
B: 3 points per semester hour
C: 2 points per semester hour
D: 1 point per semester hour
F: 0 points per semester hour

Academic Standing

Grade Review and Change of Grade

Students may petition for review of a grade within 30 calendar days after the first class day of the next long session by following these procedures:

1. The student must inform the instructor in writing of the reason for review of grade request using the Grade Review Form. Upon completion of review, the instructor will provide feedback to the student in writing. The process of the review of grade must be completed within 30 calendar days after receipt by the instructor of the written appeal.
2. If the student is dissatisfied with the outcome of the review with the faculty member, the student may request a secondary review by the Divisional Dean as an appeal using the Grade Appeal Form. The Divisional Dean will then examine the records and submit his/her recommendations through administrative channels to the campus Vice President for Academic Affairs who will make the final decision regarding the grade. The Divisional Dean will notify the student.
3. If the decision in either process is to change the grade, the Divisional Dean will submit a completed "Change of Grade Request" form.
4. If the instructor is no longer employed, the department chairperson will then examine the instructor's records, make a recommendation, and send the recommendation through the proper channels to the campus Vice President for Academic Affairs who will notify the student of the final decision.

Academic Standing

Incomplete Grades

The conditional grade of Incomplete ("I") may be given to a student prior to the end of the term, only with the approval of the Instructor, the Department Chair or Coordinator, the Division Dean, and the Vice President for Academic Affairs.

To be eligible for an Incomplete, a student must be passing the course at the time the Incomplete request is made, have a record of regular attendance, and timely submission of assignments in the course throughout the term.

Requests for Incompletes are only prior to the administering of final assessments for the term and the assignment of the final grade in the course. Emergency circumstances that will be considered for an Incomplete must be unforeseen and unavoidable such as (1) serious illness/injury, (2) a natural disaster, (3) a death in the immediate family, or (4) military deployment. Students must provide documentation of the circumstance with their request.

The instructor will determine the due date for completion of the remaining work. The deadline for completion of work for courses that are scheduled within the fall semester must be no later than the end of the spring semester. For summer and spring semesters, the deadline must be no later than the end of the fall semester.

The student must complete all course requirements prior to the deadline established by the instructor. If a Change of Grade is not submitted by the last day of the next long semester, the "I" will automatically convert to an "F."

Academic Standing

Repeating a Course

Only courses specifically designated in this catalog as repeatable for credit may be taken more than two times.

All courses that receive assigned grades appear as part of the student's permanent academic record. When courses are repeated, both grades are included in the GPA for courses taken and repeated prior to fall 1996; only the latest grade is included in the GPA when a course was repeated between fall 1996 and summer 2003. Effective with the fall 2003 semester, when a course is repeated, only the highest grade earned is used to calculate the student's cumulative grade point average.

Academic Standing

Schedule of Classes

The Schedules of Classes for both credit and non-credit are available on the TCC website. The College reserves the right to add, change or cancel any course section as necessary.

Academic Standing

Terms and Special Sessions

Tarrant County College provides all credit coursework in semester units (semester credit hours). The standard fall and spring terms include 16 weeks of instruction. In addition, each term usually includes two sessions of eight weeks each, a session of 12 weeks, and a Weekend College session of 13 to 16 weeks. A Maymester is held before summer classes and a Wintermester before the beginning of spring classes.

The summer term includes two regular sessions of five weeks each and a variety of other sessions varying from three weeks to 10 weeks. State regulations currently limit the amount of credit that may be earned during summer sessions.

Withdrawal dates, refund dates, and other calendar events for each session are included in the TCC master calendar. Dates for sessions are individually assigned. Students whose course enrollment determines eligibility for financial aid benefits, veterans' educational benefits, insurance coverage, tuition reimbursement, or any other entitlement should check with their benefits program to determine the effect of session enrollment. Students may not withdraw from any course after the withdrawal date for the session.

Detailed information about session offerings is included in the schedule of classes on the TCC website. Students should check with the department office of the course involved or with the campus Admissions and Registrar Office for additional information about particular session offerings.

Academic Standing

Transcript of TCC Student Record

The transcript of college work is an official copy of the student's permanent record bearing the College seal and designated signature. A student may request a transcript online through the current student portal (PDF or mailed copies) or they may pick up transcripts in person at the campus Admissions and Registrar Office. Any outstanding debts to the College must be paid to the Business Services Office before the student's record will be released.

If students desire official transcripts of work completed at other institutions, they must request those transcripts from the original institutions.

Academic Standing

Transfer Dispute Resolution

The Texas Higher Education Coordinating Board (THECB) intends that approved academic coursework transfer between Texas public institutions, provided that (1) courses are within the approved transfer curriculum of the declared major field and (2) published transfer policies are met. Texas public institutions are required to notify students if approved academic coursework earned at another institution will not transfer.

If an academic course or any course with a Texas Common Course Number is not accepted in transfer by another Texas public college or university, students can request that TCC submit a Transfer Dispute Form to the receiving institution. Most TCC courses transfer to other Texas public institutions of higher education, and Core Curriculum and Field of Study courses are guaranteed to transfer to fulfill the core or field element designated. This assumes the course has at least a "C" grade outcome, though some institutions will also accept grades of "D". A student who feels their TCC course work did not transfer as expected can request that TCC investigate. A request can be made by emailing DT.records@tccd.edu. If TCC cannot identify an appropriate reason for a course not transferring, it will file a dispute notice with the receiving institution and/or the Texas Higher Education Coordinating Board.

Graduation

A student should contact the campus Advising and Student Success Center with any questions about the academic plan and/or graduation requirements.

Date(s) and times(s) of commencement exercises are announced on the TCC website.

A completed Commencement Interest Form (submitted in the current student portal) is required of all students participating in the annual commencement ceremony. All graduating students are encouraged to submit the form regardless of intent to participate in the ceremony to ensure the desired name is printed on the diploma and the correct address is on file for mailing the diploma. Students submit the form during the semester they will complete their final degree or certificate requirements.

Tarrant County College (TCC) reserves the right to post degrees and/or certificates for current or former students who have met completion requirements but have not formally initiated the graduation process. Degrees and certificates are posted at the end of the term in which they are earned (in August, December and May), even if the final course is in a session ending before the term ends.

Graduation

Requirements for Graduation

A student may graduate by completing the catalog degree or certificate requirements in effect at the time of first enrollment at TCC, or those listed in a later Catalog, provided the requirements are met not later than five years from the date of the Catalog selected, the degree or certificate program and requisite courses are still being offered, and mandates of regulating agencies are satisfied.

General Requirements for an **Associate Degree**:

1. A minimum of 25 percent of the semester credit hours required for the degree must be earned in residence at TCC.
2. A minimum cumulative grade point average of 2.0 is required for all TCC courses.
3. A minimum grade point average of 2.0 is required for all courses required by the academic program.
4. All requirements of the degree must be satisfactorily completed.
5. All financial obligations to the College must be met.
6. Students applying to receive a subsequent two-year degree must complete an additional 15 hours in residence, in coursework not applied to the first degree.

General Requirements for a **Certificate of Completion**:

1. A minimum of 25 percent of the semester credit hours required for the certificate must be earned in residence at TCC.
2. A minimum grade point average of 2.0 is required for all courses presented for graduation.
3. All requirements of the certificate must be satisfactorily completed.
4. All financial obligations to the College must be met.

Graduation

Graduation Honors

Associate Degrees

Graduation honors are awarded to students completing the Associate of Arts (AA), the Associate of Arts in Teaching (AAT), the Associate of Science (AS), or the Associate of Applied Science (AAS) Degree with a superior cumulative grade point average (GPA). The following classifications of honors will be recognized on the student's transcript.

Designation	Cumulative GPA
Highest Honors	4.00
High Honors	3.75 to 3.99
Honors	3.50 to 3.74

The GPA computation to determine honors includes only completed TCC courses, not including developmental coursework, and includes all coursework during the term of completion. AA, AS, AAT, and AAS degree recipients must complete at least 30 semester hours in residence at TCC to qualify for honors.

Certificates of Completion

Graduation with Distinction is awarded to students earning a Certificate of Completion with a GPA of 3.5 or higher. This honors designation will appear on the student's transcript.

The GPA computation to determine Graduation with Distinction includes only completed TCC courses, not including developmental coursework, and includes all coursework during the term of completion. Certificate recipients must complete at least 15 semester hours in residence at TCC to qualify for Graduation with Distinction.

Graduation

Graduate Guarantee Program

Transfer Guarantee

Tarrant County College guarantees to its Associate of Arts students who have met the requirements for the degree that course credits will transfer to other public-supported Texas colleges or universities provided the following conditions are met:

1. Transferability means acceptance of credit toward a specific major and degree at a specific institution. Institutions may choose to transfer in some courses as elective credit if the TCC course does not exactly match the university course; students should plan TCC enrollments using course crosswalks published by the senior institutions.
2. Core Curriculum courses and the block of core curriculum is guaranteed by the State of Texas to transfer, component for component.
3. Limitations on the number of credits accepted in transfer, grades required, relevant grade point average, and duration of transferability apply as stated in the general undergraduate catalog of the receiving institution.
4. Only college-level courses with Lower Division Academic Course Guide Manual (ACGM) approved course rubrics are included in this guarantee.

If all the above conditions are met and courses are not accepted by a receiving institution in transfer, the student must notify the District Admissions and Records Office by emailing transcript.eval@tccd.edu the notice of transfer credit denial to initiate the Transfer Dispute Resolution process.

If course denial is not resolved, TCC will allow the student to take tuition-free alternate courses, semester hour for semester hour, which are acceptable to the receiving institution within a one-year period from granting of a degree at TCC. The graduate is responsible for payment of any fees, books, or other course-related expenses associated with the alternate course or courses.

Guarantee for Job Competency

If a recipient of an Associate of Applied Science Degree or Certificate of Completion is judged by an employer to be lacking in technical skills identified as exit competencies for a specific degree program, the graduate will be provided up to 12 tuition-free credit hours of additional skills training by TCC under the conditions of the guarantee policy. Special conditions which apply to the guarantee include the following:

1. The graduate must have earned the Associate of Applied Science Degree or Certificate of Completion in a technical, vocational, or occupational program identified in the College Catalog.
2. The graduate must have completed requirements for the Associate of Applied Science Degree or Certificate of Completion with the TCC district, with a minimum 75 percent of credits earned at TCC, and must have completed the degree or certificate within a five-year time span.
3. Graduates must be employed full-time in an area directly related to the area of program concentration as certified by the appropriate dean or other administrator.
4. Employment must commence within six months of graduation.
5. The employer must certify in writing that the employee is lacking entry-level skills identified by TCC as program completion requirements and must specify the areas of deficiency within 90 days of the graduate's initial employment.
6. The employer, graduate, campus Vice President for Academic Affairs, and appropriate faculty member will develop a written educational plan for retraining.
7. Retraining will be limited to 12 credit hours related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan.
8. All retraining must be completed within a calendar year from the time the educational plan is agreed upon.
9. The graduate and/or employer is responsible for the cost of books, insurance, uniforms, fees, and other course-related expenses.
10. The guarantee does not imply that the graduate will pass any licensing or qualifying examination for a particular career.

Activation of the "Graduate Guarantee Program" may be initiated by the graduate by contacting the appropriate dean or other administrator within 90 days of the graduate's initial employment.

General Regulations

Administrative Withdrawal

The College reserves the right to withdraw a student from class if, in the judgment of College officials, such withdrawal is in the best interest of the student or the student body at large.

Change of Address

Students who change their home address or mailing address are expected to notify the College of this change immediately using the current student portal or by contacting the campus Admissions and Registrar Office. Documentation may be required if the change would lower the tuition rate.

Official Communications

A request that a student report to an administrative or faculty office may be made by letter, email, or telephone. Failure to comply with such a request may result in disciplinary action. Each student is responsible for monitoring their myTCC email account for official communications.

Communications to the entire student body are considered properly delivered when they are sent to the student's myTCC email account, posted on the current student portal and/or TCC website. Each student is responsible for regularly checking their myTCC email and these websites.

Religious Holy Days

In accordance with state law, TCC allows an excused absence to students for the observance of a "religious holy day," defined as a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code.

Students shall be excused from attending classes or other required activities, including exams, during the time needed for travel for the purpose of the observance of a religious holy day. The law mandates that students be required to complete assignments or exams missed during the absence within a reasonable time.

Student Conduct and Discipline

Tarrant County College has established rules and regulations for student conduct and behavior. These items may be found in the Student Handbook, which is available on the TCC website. Failure to abide by all rules and regulations may be grounds for disciplinary action.

The Vice President for Student Affairs is responsible for enforcing campus student discipline as outlined in the Student Handbook and makes recommendations to the President regarding student violations of College Regulations and adherence to the District's disciplinary procedures. These procedures will assure prompt and appropriate action, as well as provide due process in accordance with the guidelines stipulated by the Texas Higher Education Coordinating Board.

Use of Legal Name

Students are required to provide their full legal name to the College. Students' permanent records, including official transcripts, are required to identify students by their full legal name. Students may record a "preferred name."

Use of Student Number

A student number is required to identify students' permanent records. The automated student information system assigns a random number, called the Colleague ID, to every student. The Colleague ID is used for all internal printed materials and provides additional protection to students' privacy. Students are urged to become familiar with their Colleague ID and to use it when communicating with College offices.

Students are requested to provide their Social Security number to the College for maintenance of their student records. This number allows the College to meet federal and state reporting requirements, enables communication with financial aid providers and service agencies, allows reporting to IRS regarding eligibility for the American Opportunity Tax Credit and Lifetime Learning Credit, and substantially eases transfer of information between the College and other colleges and universities. Students who do not provide their Social Security number risk loss of tax benefits and may encounter delays when transferring from or to other institutions. The College makes every effort to protect students' Social Security numbers from inappropriate disclosure. Questions about College use of the Social Security Number should be forwarded to the District Admissions and Records Office or the campus Admissions and Registrar Office.

Campus Carry

Effective August 1, 2017, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public community college campuses, except in locations the College establishes as prohibited. Prohibited areas include but are not limited to Theater and Performance Halls, Health Services, Testing Services, Counseling Services, Physical Education, Early College High School Programs, Child Care Facilities, and the TCC Police Department. Under the new law, openly carrying handguns is not allowed on college campuses. For more specific TCC regulations, go to the TCC website. For emergency information, go to the TCC website.

Official Notices

Tarrant County College (TCC) provides the following information in response to federal or state mandates or as a service to the College community. Additional information about these and other important topics is available on the TCC Website.

Official Notices

Access to Student Records

The Family Educational Rights and Privacy Act of 1974 (PL93-380), commonly referred to as FERPA, provides that all records pertaining to a student that are maintained by the College must be open to inspection by the student and may not be made available to any other person without the written authorization of the student. FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. A "student" is defined as a person who has registered and paid for one or more Undergraduate (UG) or Continuing Education (CE) courses and who remains enrolled through the official date of record for that term.

The act also allows the release of "directory information" defined by each institution but limited to information that might have traditionally been published in a directory of students.

TCC directory information includes:

1. Name
2. Current address
3. Telephone number(s)
4. Program of study (major)
5. Dates of attendance
6. Full-time or part-time enrollment status
7. Degrees and awards received and dates granted
8. Previous educational institution(s) attended
9. Eligibility and participation in officially recognized activities

NOTE: Email addresses are not considered directory information at TCC.

At the time of application to TCC, students are informed of their right to withhold the release of directory information. Such requests are made to any campus Admissions and Registrar Office or the District Admissions and Records Office. Likewise, a student may request that TCC stop withholding release of directory information at any time. NOTE: employers often seek to verify enrollment or credentials earned; a student who opts to have release of directory information withheld may experience a delay in the release of such information, which can impact an offer of employment.

Without consent of the student, FERPA permits the release of student information to the following:

1. To officials at an institution in which the student seeks to enroll;
2. To comply with a court order or subpoena;
3. To other officials at TCC who have legitimate educational interest in specific student information, with only the minimum justified information being provided;
4. In connection with a health or safety emergency, if necessary, to protect the student and others;
5. To parents of a student who is a dependent for income tax purposes;
6. To parents of a student younger than 21 years of age if the disclosure concerns discipline for violation of the campus drug and alcohol policy;
7. In strict compliance with the requirements of FERPA or other applicable law.

Otherwise, non-directory information is never released to any outside party without the student's official authorization. These non-directory items include but are not limited to:

1. Grade point average (GPA)
2. Academic standing
3. Grades or transcripts

TCC allows students to declare that certain individuals be able to act on their behalf in some respects. Students can complete a FERPA waiver by working with any campus Admissions and Registrar Office. These waivers are valid for a period of one year and can be renewed; the waiver can also be canceled at any time.

Questions concerning FERPA may be directed to the campus Admissions and Registrar Office or the District Admissions and Records Office. For more information, refer to TCC website.

Official Notices

The American Opportunity Credit

Students may be eligible to claim an American Opportunity Credit (AOC) against their federal income taxes. The AOC may be claimed for the qualified tuition and related expenses of students enrolled at least half time for the first four years post-secondary education when enrolled in a program leading to a degree, certificate or other recognized educational credential. Eligible tuition and fees are determined by the IRS and will be offset by any grants, scholarships or refunds received. More information is available at www.irs.gov.

Official Notices

Lifetime Learning Credit

Students may be eligible to claim a Lifetime Learning Credit against their federal income taxes. The Lifetime Learning Credit may be claimed for the qualified tuition and related expenses of students enrolled in eligible educational institutions.

If a student is claiming an American Opportunity Credit, none of that student's expenses for that year may be applied toward the Lifetime Learning Credit. More information is available at www.irs.gov.

Official Notices

IRS Form 1098-T

In January of each year, an IRS Form 1098-T is made available to all students with payments made during the previous calendar year that are limited to the amount of tuition and other related educational expenses billed for the tax year. This form is informational only and should not be considered as tax opinion or advice. As a requirement of the Taxpayer ACT of 1997, it serves to alert students that they may be eligible for federal income tax education credits. Receipt of the Form 1098-T does not indicate eligibility for the tax credit. TCC highly recommends that the student seek assistance from a tax advisor when determining their eligibility for an income tax education credit. Refer to the TCC website for the latest updates concerning the IRS Form 1098-T.

To determine the amount of qualified tuition and fees paid, and the amount of scholarships and grants received, a taxpayer should use their own financial records. Due to IRS regulations, TCC must include a student's Taxpayer Identification Number (TIN) (i.e. social security number) on the Form 1098-T for tax purposes. If the student did not provide this number when their application was submitted, the student may update their TIN by submitting a Record Change Request through their campus Admissions and Registrar Office. The Form 1098-T will be submitted to the IRS for a student even if they have not provided the College with their TIN. For more information concerning the tax identification number, visit the IRS website. Continuing Education tuition is not included on the IRS Form 1098-T.

Students are encouraged to consent to the electronic format to receive immediate access when the Form 1098-T is available to students. TCC will send one mass mailing in January to students who have not selected the electronic format by the deadline. After the mass mailing in January, all students will obtain their Form 1098-T online through the TCC website. For further questions, call the 1098T hotline number at (817) 515-1098. Due to privacy laws, TCC can only release limited information by phone to the student.

Official Notices

Selective Service

Almost all males 18 through 25 years of age living in the United States must register with the Selective Service. Almost all non-citizens also are required to register, including illegal aliens, legal permanent residents, and refugees. If a male non-citizen takes up residence in the United States prior to his 26th birthday, he must register. Additional information can be found on the TCC website.

Official Notices

Solomon Amendment

The Solomon Amendment allows military recruiters to request certain recruiting information from institutions about students. Most of the recruiting information data is considered directory information under FERPA or data that would normally be collected by the institution. The 1995/1996 National Defense Authorization Act and the 1997 Omnibus Consolidated Appropriations Act gave branches of the military access to student information including student's name, address, telephone number, age or date of birth, class, and major. The Solomon Amendment requires institutions to cooperate and comply with requests from military recruiters for student information.

Official Notices

Student Right to Know - Crime Statistics

The Campus Annual Security Report can be viewed on the TCC website. A printed copy of this report is available on request from any campus police department.

Official Notices

Student Right to Know - Graduation Statistics

Federal law requires that all institutions of higher education disclose graduation rates to students, applicants, and potential students. Graduation rates for TCC can be provided upon request to the District Office of Institutional Research.

Official Notices

Students Subject to Additional Tuition and Fees

At this time, Tarrant County College does not require additional charges for any categories of excess hours. TCC is required by law to inform students that charges may be instituted by TCC and/or may be incurred when attending other Texas colleges and universities.

Additional Charges for Students with Excessive Semester Credit Hours

Texas legislation allows state colleges and universities to charge additional tuition and/or fees for students who enter a Texas public higher education institution beginning in fall 1999 and who exceed by more than 45 hours the semester credit hours required for the degree. For undergraduate students initially enrolling fall 2006 or later, the limit is 30 semester credit hours above the number of hours required for the degree. The legislation exempts technical and workforce education courses. At this time, TCC is not charging additional tuition for excessive hours.

Additional Charges for Students Who Exceed 27 Developmental Semester Credit Hours

Texas legislation allows state colleges and universities to charge additional tuition and/or fees for students who exceed 27 semester credit hours in developmental courses. The 27-hour limit does not include any courses in English for Speakers of Other Languages (ESOL) that are taken prior to the students' initial entrance test (i.e., TASP, THEA, TSI Assessment, Compass, MAPS, and ASSET). It does not include any courses in study or thinking skills. At this time, TCC is not charging additional tuition for excess developmental hours.

Additional Charges for Repeated Courses

The Texas Legislature eliminated funding to higher education for courses that are attempted three or more times. An attempted course is defined as any course in which a grade is earned on the transcript, including repeated courses and courses dropped with a grade of "W." Tracking of enrollments is the responsibility of TCC and will begin with enrollments in the Fall 2002 semester. State regulation allows an institution of higher education to charge a higher tuition rate to a student whose hours can no longer be submitted for state funding. Therefore, in order to compensate for this loss of state funding, students attempting a course for the third or more time will be assessed an additional tuition charge of $60 per credit hour for each repeated course. Effective with the Fall 2016 term, students receiving a tuition waiver or exemption will be responsible for paying any additional charges when attempting a course three or more times. The fee is subject to change each year upon action of the Texas Higher Education Coordinating Board.

Effective with the Fall 2013 term, TCC will charge a higher tuition rate for the following repeated courses:

- Same or substantially similar course content
- Attempted more than twice
- Graded and/or courses dropped after census (A, B, C, D, F, I, W, and in some instances, NC or CR)

Courses exempted from state funding limitations include:

- Audit
- Developmental education
- Continuing education
- Repeatable for credit
- Effective for Spring 2018, courses approved through the drop exception process (Drop 6 Rule).
- Required courses for degree during final semester before graduation. *(Students should complete the Third Attempt Rule Exemption Form and submit the form to a campus Admissions and Registrar Office. The exemption applies for only one semester.)*

Official Notices

Texas Tuition Rebate Program

Section 54.0065 of the Texas Education Code provides that some students may earn a rebate up to $1,000 if they meet the following:

1. They have enrolled for the first time in an institution of higher education in the fall 1997 term or later;
2. They are requesting a rebate for work related to a first baccalaureate (bachelor's) degree received from a Texas public university (not a community college degree);
3. They have been a resident of Texas, have attempted all coursework at a Texas public institution of higher education and have been entitled to pay resident tuition at all times while pursuing the degree; and
4. They have attempted no more than three hours in excess of the minimum number of semester hours required to complete the degree under the catalog under which they were graduated. Hours attempted include transfer credits, course credit earned exclusively by examination, courses that are dropped after the official census date, for-credit developmental courses, optional internship and cooperative education courses, and repeated courses. Courses dropped for reasons that are determined by the institution to be totally beyond the control of the student shall not be counted.

All Programs

Associate of Arts in Music

General

TCC Pathway
Arts & Humanities

Location(s)
South, Northeast, Northwest, Southeast, Trinity River

Program Name
Associate of Arts in Music

Program Code
AART.D003.UG

Program Type
Associate of Arts

CIP
50.0901

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- MUSI 1311 - Music Theory I
- MUSI 1116 - Sight Singing and Ear Training I
- MUAP 1291 - Individual Instruction
- MUSI 1181 - Piano Class I
  OR MUAP 1191 - Individual Instruction
- ENGL 1301 - Composition I
- HIST 1301 - United States History I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Freshman Ensemble Course (1 Semester Credit Hour)
- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- MUSI 1312 - Music Theory II
- MUSI 1117 - Sight Singing and Ear Training II
- MUAP 1292 - Individual Instruction
- MUSI 1182 - Piano Class II
  OR MUAP 1191 - Individual Instruction
- ENGL 1302 - Composition II
- HIST 1302 - United States History II

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Freshman Ensemble Course (1 Semester Credit Hour)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- MUSI 2311 - Music Theory III
- MUSI 2116 - Sight Singing and Ear Training III
- MUAP 2291 - Individual Instruction
- MUSI 2181 - Piano Class III
  OR MUAP 1191 - Individual Instruction
- MUSI 1307 - Music Literature
- GOVT 2305 - Federal Govrnment (Federal Const & Top)

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Sophomore Ensemble Course (1 Semester Credit Hour)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- MUSI 2312 - Music Theory IV
- MUSI 2117 - Sight Singing and Ear Training IV
- MUAP 2292 - Individual Instruction
- MUSI 2182 - Piano Class IV
  OR MUAP 1191 - Individual Instruction
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Sophomore Ensemble Course (1 Semester Credit Hour)
- Life and Physical Sciences (4 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Core Curriculum Incomplete
Completion of this associate degree does not satisfy all of the Texas Core Curriculum requirements at Tarrant County College (TCC).

Additional coursework will be necessary to be considered "Core complete" for transfer to another Texas public institution. Consult with your Career Advisor to identify the additional coursework required.

To be Core complete, take KINE 1164, and select a course from each of the following Core Curriculum components: Social and Behavioral Science, Life and Physical Sciences, Language, Culture and Philosophy, and Speech and Communication Skills.

Articulation Agreement
Per Texas Administrative Code 19 Tex. Admin. Code § 2.53, a college that has a signed articulation agreement with a General Academic Teaching Institution to transfer a specified curriculum may offer a specialized AA or AS (but not AAT) degree program that incorporates that curriculum.

Refer to the TCC Common Transfer Schools for more information about the articulation agreement(s) associated with this program.

Associate of Arts

General

TCC Pathway
Arts & Humanities

Location(s)
Connect, Northeast, Northwest, South, Southeast, Trinity River

Program Name
Associate of Arts

Program Code
AART.D006.UG

Program Type
Associate of Arts

CIP
24.0102

Online Availability
This program can be completed fully online.

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- ENGL 1301 - Composition I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)
- Mathematics (3 Semester Credit Hours)
- Creative Arts (3 Semester Credit Hours)
- American History I (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- GOVT 2305 - Federal Govrnment (Federal Const & Top)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Language, Culture and Philosophy (3 Semester Credit Hours)
- Social and Behavioral Science (3 Semester Credit Hours)
- Component Area Option (3 Semester Credit Hours)
- American History II (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Life and Physical Sciences (4 Semester Credit Hours)
- Elective (3 Semester Credit Hours)
- Elective (3 Semester Credit Hours)
- Elective (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- KINE 1164 - Intro to Physical Fitness & Wellness

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Life and Physical Sciences (4 Semester Credit Hours)
- Elective (3 Semester Credit Hours)
- Elective (3 Semester Credit Hours)
- Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Students interested in an Area of Emphasis may follow the recommended course sequence linked below, which aligns with the Associate of Arts degree requirements.

Areas of Emphasis:

- Business
- Kinesiology
- Visual Arts

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Associate of Arts in Teaching: Early Childhood through Grade 6

General

TCC Pathway
Human & Public Service

Location(s)
South, Northeast, Northwest, Trinity River, Southeast, Connect

Program Name
Associate of Arts in Teaching: Early Childhood through Grade 6

Program Code
AATE.D003.UG

Program Type
Associate of Arts in Teaching

CIP
13.1210

Online Availability
This program can be completed fully online.

Learn More
Learn more about Teacher Education

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- KINE 1164 - Intro to Physical Fitness & Wellness
- MATH 1314 - College Algebra

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Life and Physical Sciences (4 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1302 - Composition II
- HIST 1302 - United States History II
- MATH 1350 - Mathematics for Teachers I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Life and Physical Sciences (4 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from each option below

Complete ALL of the following Course Sets:

- Creative Arts (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)
- Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- GOVT 2305 - Federal Govrnment (Federal Const & Top)
- EDUC 1301 - Introduction to The Teaching Profession
- MATH 1351 - Mathematics for Teachers II

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Directed Electives - AATE EC-6 (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)
- EDUC 2301 - Introduction to Special Populations

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Directed Electives - AATE EC-6 (3 Semester Credit Hours)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Social and Behavioral Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

A grade of C or better is required for all Education, Speech, and English courses. A grade point average of 2.75 is required for graduation at TCC. Check with the transferring institution for GPA requirements.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Associate of Arts in Teaching: Grades 7-12

General

TCC Pathway
Human & Public Service

Location(s)
Connect, Northeast, Northwest, Southeast, South, Trinity River

Program Name
Associate of Arts in Teaching: Grades 7-12

Program Code
AATE.D006.UG

Program Type
Associate of Arts in Teaching

CIP
13.1205

Online Availability
This program can be completed fully online.

Learn More
- *Learn more about Teacher Education*

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- HIST 1301 - United States History I
- KINE 1164 - Intro to Physical Fitness & Wellness

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

Term II
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1302 - Composition II
- HIST 1302 - United States History II

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts (3 Semester Credit Hours)
- Life and Physical Sciences (4 Semester Credit Hours)
- Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GOVT 2305 - Federal Govrnment (Federal Const & Top)
- EDUC 1301 - Introduction to The Teaching Profession

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Language, Culture and Philosophy (3 Semester Credit Hours)
- Life and Physical Sciences (4 Semester Credit Hours)
- Elective (3 Semester Credit Hours)

Term IV
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)
- EDUC 2301 - Introduction to Special Populations

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Social and Behavioral Science (3 Semester Credit Hours)
- Elective (3 Semester Credit Hours)
- Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Academic Elective / Teaching Field Elective must be chosen after consultation with advisor or Education Program Coordinator / Department Chair.

A grade of C or better is required for all Education, Speech, and English courses. A grade point average of 2.75 is required for graduation at TCC. Check with the transferring institution for GPA requirements.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Accounting Information Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Accounting Information Management, AAS

Program Code
ACCO.D002.UG

Program Type
Associate of Applied Science

CIP
52.0302

Online Availability
This program can be completed fully online.

Learn More
Learn more about Accounting Information Management

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ACCT 2301 - Principles of Financial Accounting
- ACNT 1311 - Introduction to Computerized Accounting
- ACNT 1313 - Computerized Accounting Applications
- BCIS 1305 - Business Computer Applications
- SPCH 1321 - Business and Professional Communication

Term II
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITSW 2334 - Advanced Spreadsheets
- ACCT 2302 - Principles of Managerial Accounting
- ACNT 1373 - Accounting Data Analytics
- ENGL 1301 - Composition I
- ACNT 1329 - Payroll and Business Tax Accounting

Second Year
Type
Completion Requirement

Term III
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 1301 - Business Principles
- ACNT 2332 - Accounting Information Systems
- MATH 1324 - Mathematics Business & Social Sciences
- ENGL 2311 - Technical and Business Writing
- ACNT 2373 - Small Business Accounting

Term IV
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 2305 - Business Statistics
- ECON 2302 - Principles of Microeconomics
- GOVT 2305 - Federal Govrnment (Federal Const & Top)
- ACNT 2302 - Accounting Capstone

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Accounting Specialist I

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Accounting Specialist I

Program Code
ACCO.T007.UG

Program Type
Level 1 Certificate

CIP
52.0302

Online Availability
This program can be completed fully online.

Learn More
Learn more about Accounting Specialist

Program Requirements

Simple Requisites

Subplan
First Year

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- ACNT 1311 - Introduction to Computerized Accounting
- ACNT 1313 - Computerized Accounting Applications
- BCIS 1305 - Business Computer Applications
- SPCH 1321 - Business and Professional Communication

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITSW 2334 - Advanced Spreadsheets
- ACCT 2302 - Principles of Managerial Accounting
- ACNT 1373 - Accounting Data Analytics
- ENGL 1301 - Composition I
- ACNT 1329 - Payroll and Business Tax Accounting

- Apply for Graduation

Total Semester Hours
30

Accounting Specialist II

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Accounting Specialist II

Program Code
ACCO.T008.UG

Program Type
Level 2 Certificate

CIP
52.0302

Online Availability
This program can be completed fully online.

Learn More
Learn more about Accounting Specialist

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- ACNT 1311 - Introduction to Computerized Accounting
- ACNT 1313 - Computerized Accounting Applications
- BCIS 1305 - Business Computer Applications
- SPCH 1321 - Business and Professional Communication

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITSW 2334 - Advanced Spreadsheets
- ACCT 2302 - Principles of Managerial Accounting
- ACNT 1373 - Accounting Data Analytics
- ENGL 1301 - Composition I
- ACNT 1329 - Payroll and Business Tax Accounting

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BUSI 1301 - Business Principles
- ACNT 2332 - Accounting Information Systems
- MATH 1324 - Mathematics Business & Social Sciences
- ENGL 2311 - Technical and Business Writing
- ACNT 2373 - Small Business Accounting

- Apply for Graduation

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Nursing Field of Study

General

TCC Pathway
Health Science

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Nursing Field of Study

Program Code
AFOS.F015.UG

Program Type
Field of Study

CIP
51.3801

Online Availability
This program can be completed fully online.

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses – 20 Semester Credit Hours

Complete ALL of the following Courses:

- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- PSYC 2301 - General Psychology
- MATH 1342 - Elementary Statistical Methods
- ENGL 1301 - Composition I
- ENGL 1302 - Composition II

Discipline Foundation Courses - 10 Semester Credit Hours

Complete ALL of the following Courses:

- PSYC 2314 - Life Span Growth and Development
- BIOL 2420 - Microbiology Non-Science Maj (Lec/Lab)
- HECO 1322 - Nutrition and Diet Therapy

Directed Electives – 6-8 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:

- BIOL 1406 - Biology Scienc Majors I (Lecture + Lab)
- BIOL 2421 - Microbiology for Science Maj (lec/lab)
- CHEM 1405 - Introductory Chemistry I (Lecture/Lab)
- CHEM 1411 - General Chemistry I (Lecture + Lab)
- ENGL 2311 - Technical and Business Writing
- MATH 1314 - College Algebra
- PHIL 2306 - Introduction to Ethics
- SOCI 1301 - Introduction to Sociology
- SOCI 2319 - Minority Studies
- SPCH 1318 - Interpersonal Communication

Total Semester Hours
36-38

Directed Electives Submitted by General Academic Institutions - Nursing

The following institutions will accept *any Academic Course Guide Manual (ACGM)* course for fulfilling the directed electives requirement for the Nursing Field of Study.

Midwestern University
Prairie View A&M University
University of Houston-Victoria

Below are the institutions and directed electives accepted for the Nursing Field of Study.

	BIOL 1406	BIOL 2421	CHEM 1405	CHEM 1411	ENGL 2311	MATH 1314	PHIL 2306	SOCI 1301	SOCI 2319	SPCH 1318
ANGELO STATE UNIVERSITY			X		X					
LAMAR UNIVERSITY			X			X				
SAM HOUSTON STATE UNIVERSITY				X		X				
STEPHEN F. AUSTIN UNIVERSITY			X							
SUL ROSS STATE UNIVERSITY			X		X					
SUL ROSS STATE UNIVERSITY RIO GRANDE COLLEGE			X		X					
TARLETON STATE UNIVERSITY			X		X					
TEXAS A&M INTERNATIONAL UNIVERSITY			X	X		X				
TEXAS A&M UNIVERSITY	X	X	X		X		X			
TEXAS A&M UNIVERSITY-COMMERCE			X		X					
TEXAS A&M UNIVERSITY-CORPUS CHRISTI			X							
TEXAS A&M UNIVERSITY-TEXARKANA						X		X		
TEXAS STATE UNIVERSITY						X				
TEXAS WOMAN'S UNIVERSITY			X							
THE UNIVERSITY OF TEXAS AT AUSTIN							X			X
THE UNIVERSITY OF TEXAS AT ARLINGTON					X		X			
THE UNIVERSITY OF TEXAS AT EL PASO	X			X						
THE UNIVERSITY OF TEXAS AT TYLER			X		X					
UNIVERSITY OF TEXAS PERMIAN BASIN					X				X	
UNIVERSITY OF TEXAS RIO GRANDE VALLEY			X					X		
UNIVERSITY OF HOUSTON			X					X		
WEST TEXAS A&M UNIVERSITY			X			X		X		

Social Work Field of Study

General

TCC Pathway
Health Science

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Social Work Field of Study

Program Code
AFOS.F016.UG

Program Type
Field of Study

CIP
44.0701

Online Availability
This program can be completed fully online.

Learn More
Learn more about Social Work

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 6 Semester Credit Hours

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- ENGL 1302 - Composition II

Discipline Foundation Courses - 12 Semester Credit Hours

Complete ALL of the following Courses:
- SOCW 2361 - Introduction to Social Work
- SOCW 2362 - Social Welfare: Legislation/Program/Srv
- SOCI 1306 - Social Problems
- SOCW 2389 - Academic Cooperative

Directed Electives - 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:
- BIOL 1406 - Biology Scienc Majors I (Lecture + Lab)
- BIOL 1407 - Biology for Science Maj II (Lec + Lab)
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- MATH 1342 - Elementary Statistical Methods
- PSYC 2301 - General Psychology
- PSYC 2315 - Psychology of Adjustment
- SOCI 1301 - Introduction to Sociology

Total Semester Hours
24

Directed Electives Submitted by General Academic Institutions - Social Work

The following institutions will accept *any Academic Course Guide Manual (ACGM)* course for fulfilling the directed electives requirement for the Social Work Field of Study.

LAMAR UNIVERSITY
PRAIRIE VIEW A&M UNIVERSITY
STEPHEN F. AUSTIN STATE UNIVERSITY
TEXAS A&M UNIVERSITY-CENTRAL TEXAS
THE UNIVERSITY OF TEXAS AUSTIN

Below are the institutions and directed electives accepted for the Social Work Field of Study.

	BIOL 1406	BIOL 1407	BIOL 2401	MATH 1342	PSYC 2301	PSYC 2315	SOCI 1301
MIDWESTERN STATE UNIVERSITY					X		X
TARLETON STATE UNIVERSITY				X	X		
TEXAS A&M UNIVERSITY-COMMERCE					X		
TEXAS A&M UNIVERSITY-KINGSVILLE					X		X
TEXAS A&M UNIVERSITY-TEXARKANA					X		X
TEXAS SOUTHERN UNIVERSITY					X		X
TEXAS STATE UNIVERSITY				X	X		X
TEXAS WOMAN'S UNIVERSITY					X		X
THE UNIVERSITY OF TEXAS AT ARLINGTON	X	X	X		X		X
THE UNIVERSITY OF TEXAS AT EL PASO				X	X		X
THE UNIVERSITY OF TEXAS AT TYLER				X	X		X
UNIVERSITY OF TEXAS RIO GRANDE VALLEY					X		X
UNIVERSITY OF HOUSTON-CLEAR LAKE					X		X
UNIVERSITY OF HOUSTON-DOWNTOWN					X		X
UNIVERSITY OF NORTH TEXAS				X			
WEST TEXAS A&M UNIVERSITY					X	X	X

Criminal Justice Field of Study

General

TCC Pathway
Human & Public Service

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Criminal Justice Field of Study

Program Code
AFOS.F024.UG

Program Type
Field of Study

CIP
43.0104

Online Availability
This program can be completed fully online.

Credential Map
Criminal Justice.pdf

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 3 Semester Credit Hours

Complete ALL of the following Courses:
- CRIJ 1301 - Introduction to Criminal Justice

Discipline Foundation Courses - 12 Semester Credit Hours

Complete ALL of the following Courses:
- CRIJ 1306 - Court Systems and Practices
- CRIJ 1310 - Fundamentals of Criminal Law
- CRIJ 2313 - Correctional Systems and Practices
- CRIJ 2328 - Police Systems and Practices

Directed Electives - 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:
- CRIJ 2314 - Criminal Investigation
- CRIJ 2323 - Legal Aspects of Law Enforcement
- CRIJ 1307 - Crime in America
- CRIJ 1313 - Juvenile Justice System
- MATH 1342 - Elementary Statistical Methods
- ENGL 2311 - Technical and Business Writing
- PSYC 2301 - General Psychology
- SPCH 1315 - Public Speaking
- SPCH 1318 - Interpersonal Communication
- SPCH 1311 - Introduction to Speech Communication
- COSC 1301 - Introduction to Computing
- SPAN 1411 - Beginning Spanish I
- SPAN 1412 - Beginning Spanish II
- SPAN 2311 - Intermediate Spanish I
- SPAN 2312 - Intermediate Spanish II

Total Semester Hours
21

Directed Electives Submitted by General Academic Institutions - Criminal Justice

The following institutions will accept *any Academic Course Guide Manual (ACGM) course* for fulfilling the directed electives requirement for the Criminal Justice Field of Study.

PRAIRIE VIEW A&M UNIVERSITY
MIDWESTERN STATE UNIVERSITY
TEXAS A&M UNIVERSITY-CENTRAL TEXAS
TEXAS A&M UNIVERSITY-TEXARKANA
UNIVERSITY OF HOUSTON-CLEAR LAKE
UNIVERSITY OF NORTH TEXAS AT DALLAS
WEST TEXAS A&M UNIVERSITY

Below are the institutions and directed electives accepted for the Criminal Justice Field of Study.

	CRIJ 2314	CRIJ 2323	CRIJ 1307	CRIJ 1313	COSC 1301	PSYC 2301	SPCH 1315	SPCH 1318	SPCH 1311	ENGL 2311
ANGELO STATE UNIVERSITY	X	X								
LAMAR UNIVERSITY	X									
SAM HOUSTON STATE UNIVERSITY	X		X							
STEPHEN F. AUSTIN STATE UNIVERSITY	X	X								
SUL ROSS STATE UNIVERSITY-ALPINE		X	X							
SUL ROSS STATE UNIVERSITY-RIO GRANDE COLLEGE		X	X							
TARLETON STATE UNIVERSITY	X		X	X						
TEXAS A&M INTERNATIONAL UNIVERSITY			X	X						
TEXAS A&M UNIVERSITY-COMMERCE			X							
TEXAS A&M UNIVERSITY-CORPUS CHRISTI	X									
TEXAS A&M UNIVERSITY-KINGSVILLE		X		X						
TEXAS A&M UNIVERSITY-SAN ANTONIO	X									
TEXAS SOUTHERN UNIVERSITY	X									
TEXAS STATE UNIVERSITY					X	X				
TEXAS WOMAN'S UNIVERSITY	X		X							
THE UNIVERSITY OF TEXAS AT EL PASO*	X									
THE UNIVERSITY OF TEXAS AT ARLINGTON	X	X	X	X						
THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY			X	X						
THE UNIVERSITY OF TEXAS AT SAN ANTONIO	X			X						
THE UNIVERSITY OF TEXAS AT TYLER**				X						
UNIVERSITY OF HOUSTON-DOWNTOWN							X	X		
UNIVERSITY OF HOUSTON-VICTORIA	X		X	X						
UNIVERSITY OF NORTH TEXAS									X	X

** The University of Texas at El Paso also accepts SPAN 1411, SPAN 1412, SPAN 2311, and SPAN 2312.*

*** The University of Texas at Tyler selected only one course of 3 SCH and agrees to accept any lower division course(s) from the Academic Course Guide Manual (ACGM) to fulfill the remaining 3 SCH directed electives.*

Psychology Field of Study

General

TCC Pathway
Arts & Humanities

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Psychology Field of Study

Program Code
AFOS.F029.UG

Program Type
Field of Study

CIP
42.0101

Online Availability
This program can be completed fully online.

Learn More
Learn more about Psychology

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses – 3 Semester Credit Hour

Complete ALL of the following Courses:

- PSYC 2301 - General Psychology

Discipline Foundation Courses – 9 Semester Credit Hours

Complete ALL of the following Courses:

- PSYC 2314 - Life Span Growth and Development
- PSYC 2317 - Statistical Methods in Psychology
- PSYC 2319 - Social Psychology

Directed Electives – 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:

- ENGL 1301 - Composition I
- MATH 1314 - College Algebra
- PHIL 2303 - Introduction to Formal Logic
- PSYC 2306 - Human Sexuality
- PSYC 2308 - Child Psychology
- PSYC 2315 - Psychology of Adjustment
- PSYC 2316 - Psychology of Personality
- PSYC 2320 - Abnormal Psychology
- PSYC 2330 - Biological Psychology
- SOCI 1301 - Introduction to Sociology
- SPCH 1321 - Business and Professional Communication

Total Semester Hours
18

Directed Electives Submitted by General Academic Institutions - Psychology

The following institutions will accept *any Academic Course Guide Manual (ACGM)* course for fulfilling the directed electives requirement for the Psychology Field of Study.

The University of Texas Rio Grande Valley

Below are the institutions and directed electives accepted for the Psychology Field of Study.

	ENGL 1301	MATH 1314	PHIL 2303	PSYC 2306	PSYC 2308	PSYC 2315	PSYC 2316	PSYC 2320	PSYC 2330	SOCI 1301	SPCH 1321
ANGELO STATE UNIVERSITY					X		X	X			
LAMAR UNIVERSITY					X	X					
MIDWESTERN STATE UNIVERSITY				X					X		
PRAIRIE VIEW A&M UNIVERSITY					X		X				
SAM HOUSTON STATE UNIVERSITY			X								X
STEPHEN F. AUSTIN STATE UNIVERSITY								X	X		
SUL ROSS STATE UNIVERSITY				X		X					
SUL ROSS STATE UNIVERSITY RIO GRANDE COLLEGE				X		X					
TARLETON STATE UNIVERSITY								X	X		
TEXAS A&M INTERNATIONAL UNIVERSITY					X	X		X	X		
TEXAS A&M UNIVERSITY				X					X		
TEXAS A&M UNIVERSITY-COMMERCE				X		X					
TEXAS A&M UNIVERSITY-CORPUS CHRISTI					X	X					
TEXAS A&M UNIVERSITY-KINGSVILLE				X	X	X					
TEXAS A&M UNIVERSITY-SAN ANTONIO					X	X					
TEXAS A&M UNIVERSITY-TEXARKANA							X	X			
TEXAS SOUTHERN UNIVERSITY				X		X					
TEXAS STATE UNIVERSITY								X	X		
TEXAS TECH UNIVERSITY	X	X									
TEXAS WOMAN'S UNIVERSITY								X	X		
THE UNIVERSITY OF TEXAS AT ARLINGTON				X			X	X			
THE UNIVERSITY OF TEXAS AT DALLAS				X		X					
THE UNIVERSITY OF TEXAS AT EL PASO				X			X				
THE UNIVERSITY OF TEXAS AT SAN ANTONIO								X	X		
THE UNIVERSITY OF TEXAS AT TYLER				X	X						
THE UNIVERSITY OF TEXAS PERMIAN BASIN				X				X			
UNIVERSITY OF HOUSTON							X		X		
UNIVERSITY OF HOUSTON-CLEAR LAKE				X	X		X	X	X		
UNIVERSITY OF HOUSTON-DOWNTOWN								X	X		
UNIVERSITY OF HOUSTON-VICTORIA								X	X		
UNIVERSITY OF NORTH TEXAS						X			X		
UNIVERSITY OF NORTH TEXAS AT DALLAS							X	X			
WEST TEXAS A&M UNIVERSITY	X									X	

Business Administration Field of Study

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Business Administration Field of Study

Program Code
AFOS.F031.UG

Program Type
Field of Study

CIP
52.0101

Online Availability
This program can be completed fully online.

Learn More
Learn more about Business

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 6 Semester Credit Hours

Complete ALL of the following Courses:

- ECON 2301 - Principles of Macroeconomics
- MATH 1324 - Mathematics Business & Social Sciences

Discipline Foundation Courses - 12 Semester Credit Hours

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- ACCT 2302 - Principles of Managerial Accounting
- BUSI 1301 - Business Principles
- ECON 2302 - Principles of Microeconomics

Directed Electives - 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:

- BCIS 1305 - Business Computer Applications
- BUSI 1307 - Personal Finance
- BUSI 2301 - Business Law
- BUSI 2305 - Business Statistics
- ENGL 2311 - Technical and Business Writing
- MATH 1314 - College Algebra
- MATH 1325 - Calculus for Business & Social Sciences
- MATH 1342 - Elementary Statistical Methods
- SPCH 1321 - Business and Professional Communication

Total Semester Hours
24

Directed Electives Submitted by General Academic Institutions - Business Administration

Below are the institutions and directed electives accepted for the Business Administration Field of Study.

	BCIS 1305	BUSI 1307	BUSI 2301	BUSI 2305	ENGL 2311	MATH 1314	MATH 1325	MATH 1342	SPCH 1321
ANGELO STATE UNIVERSITY	X			X					
LAMAR UNIVERSITY	X			X					
MIDWESTERN STATE UNIVERSITY	X				X				
PRAIRIE VIEW A&M UNIVERSITY	X					X			
SAM HOUSTON STATE UNIVERSITY	X			X					
STEPHEN F. AUSTIN STATE UNIVERSITY				X					
SUL ROSS STATE UNIVERSITY-ALPINE	X						X		
SUL ROSS STATE UNIVERSITY-RIO GRANDE COLLEGE	X						X		
TARLETON STATE UNIVERSITY	X			X					
TEXAS A&M INTERNATIONAL UNIVERSITY				X			X		
TEXAS A&M UNIVERSITY	X			X					
TEXAS A&M UNIVERSITY AT GALVESTON	X		X	X			X		
TEXAS A&M UNIVERSITY-CENTRAL TEXAS*	X								
TEXAS A&M UNIVERSITY-COMMERCE	X						X		
TEXAS A&M UNIVERSITY-CORPUS CHRISTI	X			X			X		
TEXAS A&M UNIVERSITY-KINGSVILLE	X			X					
TEXAS A&M UNIVERSITY-SAN ANTONIO	X		X	X					
TEXAS A&M UNIVERSITY-TEXARKANA	X		X				X	X	
TEXAS SOUTHERN UNIVERSITY				X			X		
TEXAS STATE UNIVERSITY	X			X					
TEXAS TECH UNIVERSITY				X			X		
TEXAS WOMAN'S UNIVERSITY		X						X	
THE UNIVERSITY OF TEXAS AT DALLAS			X					X	
THE UNIVERSITY OF TEXAS AT EL PASO				X			X		
THE UNIVERSITY OF TEXAS AT TYLER*	X			X					
THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY	X			X					
UNIVERSITY OF HOUSTON	X			X					
UNIVERSITY OF HOUSTON-CLEAR LAKE	X			X					
UNIVERSITY OF HOUSTON-DOWNTOWN	X			X					
UNIVERSITY OF HOUSTON-VICTORIA	X			X					X
UNIVERSITY OF NORTH TEXAS	X			X					
UNIVERSITY OF NORTH TEXAS AT DALLAS	X			X					
THE UNIVERSITY OF TEXAS AT ARLINGTON	X			X					
THE UNIVERSITY OF TEXAS AT SAN ANTONIO	X			X			X		
THE UNIVERSITY OF TEXAS PERMIAN BASIN	X			X					
WEST TEXAS A&M UNIVERSITY				X			X		

** Texas A&M University-Central Texas selected only one course of 3 SCH and agrees to accept any lower division course(s) from the Academic Course Guide Manual (ACGM) to fulfill the remaining 3 SCH directed elective.*

History Field of Study

General

TCC Pathway
Arts & Humanities

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
History Field of Study

Program Code
AFOS.F032.UG

Program Type
Field of Study

CIP
54.0101

Online Availability
This program can be completed fully online.

Learn More
Learn more about History

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 6 Semester Credit Hours

Complete ALL of the following Courses:
- HIST 1301 - United States History I
- HIST 1302 - United States History II

Designated Foundation Courses - 9 Semester Credit Hours

Complete ALL of the following Courses:
- HIST 2321 - World Civilizations I
- HIST 2322 - World Civilizations II
- HIST 2301 - Texas History

Directed Electives - 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:
- HIST 2327 - Mexican-American History I
- HIST 2328 - Mexican-American History II
- HIST 2381 - African American History I
- HIST 2382 - African American History II
- HIST 2311 - Western Civilization I
- ECON 2301 - Principles of Macroeconomics
- GEOG 1303 - World Regional Geography

Total Semester Hours
21

Directed Electives Submitted by General Academic Institutions - History

The following institutions will accept *any Academic Course Guide Manual (ACGM)* course for fulfilling the directed electives requirement for the History Field of Study.

TEXAS WOMAN'S UNIVERSITY

Below are the institutions and directed electives accepted for the History Field of Study.

	ECON 2301	GEOG 1303	HIST 2311	HIST 2327	HIST 2328	HIST 2381	HIST 2382
SAM HOUSTON STATE UNIVERSITY				X	X	X	X
TEXAS A&M UNIVERSITY				X	X		
TEXAS A&M UNIVERSITY-COMMERCE				X	X	X	X
TEXAS A&M UNIVERSITY-TEXARKANA	X	X					
THE UNIVERSITY OF TEXAS AT TYLER				X	X	X	X
WEST TEXAS A&M UNIVERSITY*			X				

** West Texas A&M University selected only one course of 3 SCH and agrees to accept any lower division course(s) from the Academic Course Guide Manual (ACGM) as fulfilling the remaining 3 SCH directed electives.*

Sociology Field of Study

General

TCC Pathway
Arts & Humanities

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Sociology Field of Study

Program Code
AFOS.F033.UG

Program Type
Field of Study

CIP
45.1101

Online Availability
This program can be completed fully online.

Learn More
Learn more about Sociology

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 3 Semester Credit Hours

Complete ALL of the following Courses:

- SOCI 1301 - Introduction to Sociology

Discipline Foundation Courses - 9 Semester Credit Hours

Complete ALL of the following Courses:

- SOCI 1306 - Social Problems
- SOCI 1301 - Introduction to Sociology Honors (Inactive)
- SOCI 2319 - Minority Studies

Directed Electives - 9 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 3 of the following courses:

- ANTH 2351 - Cultural Anthropology
- GEOG 1303 - World Regional Geography
- MATH 1314 - College Algebra
- MATH 1342 - Elementary Statistical Methods
- PSYC 2301 - General Psychology
- SOCI 2336 - Criminology
- SPCH 1315 - Public Speaking

Total Semester Hours
21

Directed Electives Submitted by General Academic Institutions - Sociology

The following institutions will accept *any Academic Course Guide Manual (ACGM)* course for fulfilling the directed electives requirement for the Sociology Field of Study.

SAM HOUSTON STATE UNIVERSITY
TARLETON STATE UNIVERSITY
TEXAS A&M UNIVERSITY-CORPUS CHRISTI
TEXAS A&M UNIVERSITY-KINGSVILLE
TEXAS A&M UNIVERSITY-TEXARKANA
TEXAS WOMAN'S UNIVERSITY
UNIVERSITY OF HOUSTON
UNIVERSITY OF HOUSTON-CLEAR LAKE
UNIVERSITY OF HOUSTON-DOWNTOWN

Below are the institutions and directed electives accepted for the Sociology Field of Study.

	ANTH 2351	GEOG 1303	MATH 1314	MATH 1342	PSYC 2301	SPCH 1315	SOCI 2336
ANGELO STATE UNIVERSITY				X			X
LAMAR UNIVERSITY				X			
MIDWESTERN STATE UNIVERSITY				X			X
PRAIRIE VIEW A&M UNIVERSITY							X
STEPHEN F. AUSTIN STATE UNIVERSITY	X						X
TEXAS A&M INTERNATIONAL UNIVERSITY				X			X
TEXAS A&M UNIVERSITY				X			X
TEXAS A&M UNIVERSITY-CENTRAL TEXAS				X			X
TEXAS A&M UNIVERSITY-COMMERCE				X			X
TEXAS SOUTHERN UNIVERSITY							X
TEXAS STATE UNIVERSITY				X			X
TEXAS TECH UNIVERSITY			X	X		X	
THE UNIVERSITY OF TEXAS AT AUSTIN*				X			
THE UNIVERSITY OF TEXAS AT ARLINGTON						X	X
THE UNIVERSITY OF TEXAS AT SAN ANTONIO				X			X
THE UNIVERSITY OF TEXAS AT PERMIAN BASIN							X
THE UNIVERSITY OF TEXAS AT DALLAS			X	X			
THE UNIVERSITY OF TEXAS AT EL PASO				X			X
THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY				X			X
UNIVERSITY OF NORTH TEXAS	X	X					X
UNIVERSITY OF NORTH TEXAS AT DALLAS				X			X
WEST TEXAS A&M UNIVERSITY					X		X

** The University of Texas at Austin selected only one course of 3 SCH and agrees to accept any lower division course(s) from the Academic Course Guide Manual (ACGM) as fulfilling the remaining 3 SCH directed electives.*

Education (EC-3 Core Subjects) Field of Study

General

TCC Pathway
Human & Public Service

Location(s)
Connect, Northeast, Northwest, South, Southeast, Trinity River

Program Name
Education (EC-3 Core Subjects) Field of Study

Program Code
AFOS.F034.UG

Program Type
Field of Study

CIP
13.1206

Online Availability
This program can be completed fully online.

Learn More
Learn more about Teacher Education

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 3 Semester Credit Hours

None

Discipline Foundation Courses - 6 Semester Credit Hours

Complete ALL of the following Courses:

- EDUC 1301 - Introduction to The Teaching Profession
- EDUC 2301 - Introduction to Special Populations

Directed Electives - 12 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 4 of the following courses:

- ARTS 1301 - Art Appreciation
- GEOG 1303 - World Regional Geography
- HIST 1301 - United States History I
- HIST 1302 - United States History II
- HIST 2301 - Texas History
- MATH 1350 - Mathematics for Teachers I
- MATH 1351 - Mathematics for Teachers II
- PSYC 2314 - Life Span Growth and Development
- TECA 1303 - Families, School and Community
- TECA 1311 - Educating Young Children
- TECA 1318 - Wellness of The Young Child
- TECA 1354 - Child Growth and Development

Total Semester Hours
21

Directed Electives Submitted by General Academic Institutions - Education (EC-3)

The following institutions will accept *any Academic Course Guide Manual (ACGM) course* for fulfilling the directed electives requirement (6 SCH) for the **EC-3** Education Field of Study.

Lamar University
The University of Texas Health Science Center at San Antonio

Below are the directed electives that were submitted by the remaining general academic institutions that offer education degrees in the **EC-3 Core Subject** area for Education:

	ARTS 1301	BIOL 1408	GEOG 1303	HIST 1301	HIST 1302	HIST 2301	MATH 1350	MATH 1351	PSYC 2314	TECA 1303	TECA 1311	TECA 1318	TECA 1354
MIDWESTERN STATE UNIVERSITY				X	X		X	X			X		X
SAM HOUSTON STATE UNIVERSITY			X			X	X	X	X	X	X	X	X
TARLETON STATE UNIVERSITY							X	X		X			X
TEXAS A&M UNIVERSITY						X	X	X			X		
TEXAS A&M UNIVERSITY-COMMERCE							X	X				X	X
TEXAS A&M UNIVERSITY-CORPUS CHRISTI	X					X	X						X
TEXAS A&M UNIVERSITY-SAN ANTONIO		X					X	X	X				
TEXAS STATE UNIVERSITY			X				X	X					X
TEXAS WOMAN'S UNIVERSITY						X				X	X	X	X
THE UNIVERSITY OF TEXAS AT TEXAS PERMIAN BASIN			X			X	X	X					
THE UNIVERSITY OF TEXAS AT TEXAS RIO GRANDE VALLEY						X	X	X	X				
UNIVERSITY OF HOUSTON-CLEAR LAKE							X			X		X	X

Education (4-8 Core Subjects) Field of Study

General

TCC Pathway
Human & Public Service

Location(s)
Connect, Northeast, Northwest, South, Southeast, Trinity River

Program Name
Education (4-8 Core Subjects) Field of Study

Program Code
AFOS.F035.UG

Program Type
Field of Study

CIP
13.1206

Online Availability
This program can be completed fully online.

Learn More
Learn more about Teacher Education

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 3 Semester Credit Hours

Complete ALL of the following Courses:

- MATH 1314 - College Algebra

Discipline Foundation Courses - 12 Semester Credit Hours

Complete ALL of the following Courses:

- EDUC 1301 - Introduction to The Teaching Profession
- EDUC 2301 - Introduction to Special Populations
- MATH 1350 - Mathematics for Teachers I
- MATH 1351 - Mathematics for Teachers II

Directed Electives - 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:

- ARTS 1301 - Art Appreciation
- BIOL 1408 - Biology for Non-Science Maj I (Lec/Lab)
- ECON 2301 - Principles of Macroeconomics
- ENGL 1302 - Composition II
- GEOG 1303 - World Regional Geography
- GEOL 1401 - Earth Science for Non-Sci Maj (Lec/Lab)
- GEOL 1403 - Physical Geology (Lecture + Lab)
- HIST 1301 - United States History I
- HIST 1302 - United States History II
- HIST 2301 - Texas History
- MUSI 1306 - Music Appreciation
- TECA 1311 - Educating Young Children
- TECA 1354 - Child Growth and Development

Total Semester Hours
21

Directed Electives Submitted by General Academic Institutions - Education (4-8)

The following institutions will accept *any Academic Course Guide Manual (ACGM) course* for fulfilling the directed electives requirement (6 SCH) for the **4-8** Education Field of Study.

LAMAR UNIVERSITY
PRAIRIE VIEW A&M UNIVERSITY
STEPHEN F. AUSTIN STATE UNIVERSITY
SUL ROSS STATE UNIVERSITY
SUL ROSS STATE UNIVERSITY - RIO GRANDE
THE UNIVERSITY OF TEXAS AT DALLAS
THE UNIVERSITY OF NORTH TEXAS AT DALLAS
THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO

Below are the directed electives that were submitted by the remaining general academic institutions that offer education degrees in the **4-8 Core Subject** area for Education:

	ARTS 1301	BIOL 1408	ECON 2301	ENGL 1302	GEOG 1303	GEOL 1401	GEOL 1403	HIST 1301	HIST 1302	HIST 2301	MUSI 1306	TECA 1311	TECA 1354
ANGELO STATE UNIVERSITY		X								X			
MIDWESTERN STATE UNIVERSITY		X				X		X	X		X		X
SAM HOUSTON STATE UNIVERSITY	X	X	X			X	X			X	X		X
TARLETON STATE UNIVERSITY			X										X
TEXAS A&M UNIVERSITY										X		X	
TEXAS A&M UNIVERSITY-COMMERCE				X									X
TEXAS A&M UNIVERSITY-KINGSVILLE (EC-6/4-8 ONLY)		X				X	X						
TEXAS A&M UNIVERSITY-SAN ANTONIO		X								X			
TEXAS SOUTHERN UNIVERSITY	X										X		
TEXAS STATE UNIVERSITY				X						X			
TEXAS TECH UNIVERSITY		X									X		
TEXAS WOMAN'S UNIVERSITY						X				X			
THE UNIVERSITY OF TEXAS AT ARLINGTON										X			X
THE UNIVERSITY OF TEXAS AT EL PASO													X
THE UNIVERSITY OF TEXAS AT TYLER	X												
THE UNIVERSITY OF TEXAS AT TEXAS PERMIAN BASIN		X								X			
UNIVERSITY OF HOUSTON-CLEAR LAKE					X					X			
UNIVERSITY OF HOUSTON-DOWNTOWN		X											
UNIVERSITY OF HOUSTON-VICTORIA	X	X	X	X		X	X				X		
WEST TEXAS A&M UNIVERSITY		X				X							

Education (EC-6 Core Subjects) Field of Study

General

TCC Pathway
Human & Public Service

Location(s)
Connect, Northeast, Northwest, South, Southeast, Trinity River

Program Name
Education (EC-6 Core Subjects) Field of Study

Program Code
AFOS.F036.UG

Program Type
Field of Study

CIP
13.1206

Online Availability
This program can be completed fully online.

Learn More
Learn more about Teacher Education

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Designated Core Courses - 3 Semester Credit Hours

Complete ALL of the following Courses:

- MATH 1314 - College Algebra

Discipline Foundation Courses - 12 Semester Credit Hours

Complete ALL of the following Courses:

- EDUC 1301 - Introduction to The Teaching Profession
- EDUC 2301 - Introduction to Special Populations
- MATH 1350 - Mathematics for Teachers I
- MATH 1351 - Mathematics for Teachers II

Directed Electives - 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete at least 2 of the following courses:

- ARTS 1301 - Art Appreciation
- BIOL 1408 - Biology for Non-Science Maj I (Lec/Lab)
- ECON 2301 - Principles of Macroeconomics
- ENGL 1302 - Composition II
- GEOG 1303 - World Regional Geography
- GEOL 1401 - Earth Science for Non-Sci Maj (Lec/Lab)
- GEOL 1403 - Physical Geology (Lecture + Lab)
- HIST 1301 - United States History I
- HIST 1302 - United States History II
- HIST 2301 - Texas History
- MUSI 1306 - Music Appreciation
- TECA 1303 - Families, School and Community
- TECA 1311 - Educating Young Children
- TECA 1354 - Child Growth and Development

Total Semester Hours
21

Directed Electives Submitted by General Academic Institutions - Education (EC-6)

The following institutions will accept *any Academic Course Guide Manual (ACGM) course* for fulfilling the directed electives requirement (6 SCH) for the **EC-6** Education Field of Study.

LAMAR UNIVERSITY
PRAIRIE VIEW A&M UNIVERSITY
STEPHEN F. AUSTIN STATE UNIVERSITY
SUL ROSS STATE UNIVERSITY
SUL ROSS STATE UNIVERSITY - RIO GRANDE
TEXAS A&M UNIVERSITY - TEXARKANA
THE UNIVERSITY OF NORTH TEXAS AT DALLAS
THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO
UNIVERSITY OF HOUSTON

Below are the directed electives that were submitted by the remaining general academic institutions that offer education degrees in the **EC-6 Core Subject** area for Education:

	ARTS 1301	BIOL 1408	ECON 2301	ENGL 1302	GEOG 1303	GEOL 1401	GEOL 1403	HIST 1301	HIST 1302	HIST 2301	MUSI 1306	TECA 1303	TECA 1311	TECA 1354
ANGELO STATE UNIVERSITY		X								X				
MIDWESTERN STATE UNIVERSITY		X				X		X	X		X			X
SAM HOUSTON STATE UNIVERSITY	X	X	X			X	X			X	X	X		X
TARLETON STATE UNIVERSITY			X											X
TEXAS A&M INTERNATIONAL UNIVERSITY		X				X								
TEXAS A&M UNIVERSITY										X			X	
TEXAS A&M UNIVERSITY-COMMERCE				X										X
TEXAS A&M UNIVERSITY-CORPUS CHRISTI	X									X				X
TEXAS A&M UNIVERSITY-KINGSVILLE		X				X	X							
TEXAS A&M UNIVERSITY-SAN ANTONIO		X								X				
TEXAS SOUTHERN UNIVERSITY	X										X			
TEXAS STATE UNIVERSITY				X						X				X
TEXAS TECH UNIVERSITY		X								X				
TEXAS WOMAN'S UNIVERSITY										X			X	
THE UNIVERSITY OF TEXAS AT ARLINGTON										X				X
THE UNIVERSITY OF TEXAS AT AUSTIN		X								X				
THE UNIVERSITY OF TEXAS AT EL PASO														X
THE UNIVERSITY OF TEXAS AT TEXAS AT TYLER	X													
THE UNIVERSITY OF TEXAS AT TEXAS PERMIAN BASIN							X			X				
THE UNIVERSITY OF TEXAS AT TEXAS RIO GRANDE VALLEY	X										X			
THE UNIVERSITY OF TEXAS AT NORTH TEXAS AT DALLAS		X								X				
UNIVERSITY OF HOUSTON-CLEAR LAKE												X		X
UNIVERSITY OF HOUSTON-DOWNTOWN		X												
UNIVERSITY OF HOUSTON-VICTORIA	X	X	X	X		X	X				X			
UNIVERSITY OF NORTH TEXAS	X	X	X			X	X			X	X	X		X

Communications Field of Study

General

TCC Pathway
Arts & Humanities

Location(s)
Connect, Northeast, South, Southeast, Trinity River, Northwest

Program Name
Communications Field of Study

Program Code
AFOS.F037.UG

Program Type
Field of Study

CIP
09.0101

Online Availability
This program can be completed fully online.

Learn More
Learn more about Communications

Program Requirements

Simple Requisites

Subplan

Senate Bill 148 of the 75th Texas Legislature (1997) mandated Field of Study Curricula. The Field of Study curricula, along with core curricula, are intended to facilitate the transferability of courses among Texas public colleges and universities. All public four-year institutions are required to accept Coordinating Board-approved Field of Study courses in fulfillment of lower-division requirements for bachelor's degrees in majors that correspond to the Field of Study.

Field of Study Requirements
Type
Completion Requirement

Discipline Foundation Courses - 12 Semester Credit Hours

Complete ALL of the following Courses:

- SPCH 1311 - Introduction to Speech Communication
- SPCH 1315 - Public Speaking
- SPCH 1318 - Interpersonal Communication
- SPCH 1321 - Business and Professional Communication

Directed Electives - 6 Semester Credit Hours

The list below includes the directed electives offered by TCC that will be accepted by the general academic teaching institution for students transferring. A student planning to transfer should review the accepted directed electives of the intended transfer college or university to verify transferability.

Complete ALL of the following Courses:

- COMM 1307 - Introduction to Mass Communication
- COMM 2311 - Media Writing
- COMM 2366 - Film Appreciation
- ENGL 1301 - Composition I
- PHIL 2303 - Introduction to Formal Logic
- PHIL 2306 - Introduction to Ethics
- PSYC 2315 - Psychology of Adjustment
- SOCI 1301 - Introduction to Sociology
- SPCH 2335 - Argumentation and Debate

Total Semester Hours
18

Directed Electives Submitted by General Academic Institutions - Sociology

The following institutions will accept *any Academic Course Guide Manual (ACGM) course* to fulfill the directed electives requirement (6 SCH) for the Communications Field of Study.

ANGELO STATE UNIVERSITY
MIDWESTERN STATE UNIVERSITY
THE UNIVERSITY OF NORTH TEXAS
THE UNIVERSITY OF TEXAS AT SAN ANTONIO
UNIVERSITY OF HOUSTON - VICTORIA

Below are the institutions and directed electives accepted for the Communications Field of Study.

	COMM1307 INTRO TO MASS COMMUNICATION	COMM 2311	COMM 2366	ENGL 1301	PHIL 2303	PHIL 2306	PSYC 2315	SOCI 1301	SPCH 2335
LAMAR UNIVERSITY	X	X							
PRAIRIE VIEW A&M UNIVERSITY	X	X							X
SAM HOUSTON STATE UNIVERSITY					X	X	X	X	
STEPHEN F. AUSTIN STATE UNIVERSITY	X	X							
SUL ROSS STATE UNIVERSITY	X								X
TARLETON STATE UNIVERSITY	X	X							
TEXAS A&M UNIVERSITY									X
TEXAS A&M UNIVERSITY-COMMERCE									X
TEXAS A&M UNIVERSITY-CORPUS CHRISTI	X	X	X						
TEXAS A&M UNIVERSITY-KINGSVILLE	X	X							
TEXAS A&M UNIVERSITY-SAN ANTONIO	X	X							
TEXAS A&M UNIVERSITY-TEXARKANA	X	X							
TEXAS SOUTHERN UNIVERSITY	X								
TEXAS STATE UNIVERSITY									X
TEXAS TECH UNIVERSITY									X
THE UNIVERSITY OF TEXAS AT ARLINGTON				X					
THE UNIVERSITY OF TEXAS AT AUSTIN									X
THE UNIVERSITY OF TEXAS AT EL PASO	X								
THE UNIVERSITY OF TEXAS AT TYLER	X	X							X
THE UNIVERSITY OF TEXAS PERMIAN BASIN	X								
THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY									X
UNIVERSITY OF HOUSTON	X								
UNIVERSITY OF HOUSTON-CLEAR LAKE	X	X							
UNIVERSITY OF HOUSTON-DOWNTOWN	X								
WEST TEXAS A&M UNIVERSITY									X

Anesthesia Technology, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Anesthesia Technology, AAS

Program Code
ANES.D001.UG

Program Type
Associate of Applied Science

CIP
51.0809

Learn More
Learn more about Anesthesia Technology

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following courses must be completed prior to applying for admission into the Anesthesia Technology Program.

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- CHEM 1406 - Intr Chemistry I-Allied Hlth (Lec/Lab)
- ENGL 1301 - Composition I
- PSYC 2301 - General Psychology

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HPRS 1206 - Essentials of Medical Terminology
- ANES 1371 - Principles of Anesthesia Technology
- ANES 1372 - Introduction to Anesthesia Technology
- PHIL 2306 - Introduction to Ethics

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ANES 1370 - Anesthesia (Basic) Pharmacology
- ANES 1373 - Anesthesia Technology Fundamentals I
- ANES 1474 - Anesthesia Technology Instrumentation I

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ANES 1375 - Anesthesia Technology Clinic Exp I

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ANES 2373 - Anesthesia Technology Fundamentals II
- ANES 2474 - Anesthesia Technology Instrumentation II
- ANES 2375 - Anesthesia Tech Clinic Experience II

Term V

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ANES 2476 - Anesthesia Clinical Seminar & Review
- ANES 2475 - Anesthesia Tech Clinic Experience III

- Apply for Graduation

Total Semester Hours
60

***Selective Admission Criteria*:**

All applicants to the Anesthesia Technology Program are required to attend an information session before the application deadline.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *Currently have Minimum GPA of 2.5*
- *IELTS 6.5 minimum score or TOEFL iBT test 83 minimum score for ESL students*

Prior to application, students with international college credits must contact International Student Admissions and Compliance 817-515-1570 to verify those courses that will transfer to TCCD.

Once admitted to the program students must maintain a minimum grade of "C" (75%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check, both of which must report negative in order to remain in the program.

Required immunizations must be completed prior to the beginning of classes. For additional information refer to the TCC website.

After satisfactory completion of the above curriculum, the student is eligible to take the national examination to become certified as a Certified Anesthesia Technologist with the ASATT.

The Tarrant County College Anesthesia Technology program is applying for accreditation by the Commission on Accreditation of Allied Health Programs (CAAHEP), 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Architectural Technology, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Architectural Technology, AAS

Program Code
ARCH.D001.UG

Program Type
Associate of Applied Science

CIP
15.0101

Learn More
Learn more about Architectural Technology

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Summer Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1315 - Architectural Computer Graphics

Fall Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1311 - Introduction to Architecture
- ARCH 2312 - Architectural Technology
- ARCH 1303 - Architectural Design I
- MATH 1314 - College Algebra

Spring Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCE 2352 - Mechanical/Electrical/Plumbing(MEP) Sys
- ARCH 1304 - Architectural Design II
- ARCE 1342 - Codes/Specifications/Contract Documents
  OR CNBT 1342 - Building Codes and Inspections
- ENGL 1301 - Composition I

Second Year
Type
Completion Requirement

Summer Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1307 - Architectural Graphics I
- ARCH 1308 - Architectural Graphics II

Fall Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ARCH 1301 - Architectural History I
- ARCH 2301 - Architectural Freehand Drawing I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)

Spring Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- SRVY 1301 - Introduction to Surveying
- ARCH 1302 - Architectural History II
- ARCH 2302 - Architectural Freehand Drawing II
- ARCT 2367 - Practicum-Architectural Engineerng Tech

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Architectural CAD Operator

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Architectural CAD Operator

Program Code
ARCH.T001.UG

Program Type
Level 1 Certificate

CIP
15.0101

Learn More
Learn more about Architectural Technology

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Summer Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1315 - Architectural Computer Graphics

Fall Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1303 - Architectural Design I
- ARCH 2312 - Architectural Technology

Spring Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1304 - Architectural Design II
- ARCE 2352 - Mechanical/Electrical/Plumbing(MEP) Sys
- ARCH 1307 - Architectural Graphics I
  OR ARCH 1308 - Architectural Graphics II

- Apply for Graduation

Total Semester Hours
18

Learning Outcomes

Architectural Paraprofessional

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Architectural Paraprofessional

Program Code
ARCH.T005.UG

Program Type
Level 1 Certificate

CIP
15.0101

Learn More
Learn more about Architectural Technology

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Summer Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1315 - Architectural Computer Graphics

Fall Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1301 - Architectural History I
- ARCH 1303 - Architectural Design I
  OR ARCH 1304 - Architectural Design II
- ARCH 1311 - Introduction to Architecture
- ARCH 2301 - Architectural Freehand Drawing I
- ARCH 2312 - Architectural Technology

Spring Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCE 2352 - Mechanical/Electrical/Plumbing(MEP) Sys
- ARCH 2302 - Architectural Freehand Drawing II
- ARCH 1302 - Architectural History II
- ARCH 1307 - Architectural Graphics I
  OR ARCH 1308 - Architectural Graphics II

- Apply for Graduation

Total Semester Hours
30

Learning Outcomes

Architectural Technology

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Architectural Technology

Program Code
ARCH.T009.UG

Program Type
Occupational Skills Award

CIP
15.0101

Learn More
Learn more about Architectural Technology

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Summer Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 1315 - Architectural Computer Graphics

Fall Term

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ARCH 2312 - Architectural Technology
- ARCH 1311 - Introduction to Architecture

- Apply for Graduation

Total Semester Hours
9

Learning Outcomes

Associate of Science in Engineering

General

TCC Pathway
STEM

Location(s)
Southeast

Program Name
Associate of Science in Engineering

Program Code
ASCE.D006.UG

Program Type
Associate of Science

CIP
14.0101

Learn More
Learn more about Engineering

Program Requirements

Simple Requisites

Subplan

While this suggested course of study satisfies the requirements of most senior institutions, it is the student's responsibility to identify his or her transfer institution to determine specific requirements for the freshman and sophomore years.

Completion of the Associate of Science in Engineering degree does not complete State of Texas requirements for Core Curriculum.

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MATH 2413 - Calculus I
- ENGL 1301 - Composition I
- ENGR 1201 - Introduction to Engineering
- ECON 2301 - Principles of Macroeconomics
- SPCH 1311 - Introduction to Speech Communication
  OR SPCH 1321 - Business and Professional Communication

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MATH 2414 - Calculus II
- PHYS 2425 - University Physics I (Lecture + Lab)
- ENGL 1302 - Composition II
  OR ENGL 2311 - Technical and Business Writing
- COSC 1436 - Programming Fundamentals I
  OR COSC 1420 - "C" Programming

COSC 1420 *is strongly recommended for* ***Electrical Engineering*** *majors.*

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- MATH 2415 - Calculus III
- PHYS 2426 - Univerisity Physics II (Lecture + Lab)
- GOVT 2305 - Federal Govrnment (Federal Const & Top)
- HIST 1301 - United States History I

AND

Students should select courses that best match the degree requirements at the four-year engineering school of choice

Complete ANY of the following Course Sets:

- Engineering Elective (3 Semester Credit Hours)

Civil Engineering *and* ***Mechanical Engineering*** *majors need to take* ***ENGR 2301****.*

Electrical Engineering *majors need to take* ***ENGR 2305****.*

General Engineering *majors need to take* ***ENGR 2301*** *or* ***ENGR 2305****.*

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CHEM 1411 - General Chemistry I (Lecture + Lab)

AND

Students should select courses that best match the degree requirements at the four-year engineering school of choice

Complete ALL of the following Course Sets:

- Engineering Elective (3 Semester Credit Hours)
- Engineering Elective (3 Semester Credit Hours)
- Engineering Elective (3 Semester Credit Hours)

Civil Engineering and **Industrial Engineering** majors need to take **ENGR 1304**.

Mechanical Engineering majors need to take **ENGR 2302**.

- Apply for Graduation

Total Semester Hours
60

Below are the Restricted Electives. Students *should select the courses that best match the degree requirements at the four-year engineering school of choice:*

	ENGR 1304	ENGR 2301	ENGR 2302	ENGR 2305	ENGR 2308	ENGR 2332	MATH 2318	MATH 2320*	ENGL 2311	GOVT 2306	HIST 1302
Civil Engineering majors	Required	Required	X			X		X		X	X
Electrical Engineering majors		X	X	Required	X		X	X		X	X
Industrial Engineering majors	Required	X		X	X			X	X	X	X
Mechanical Engineering majors	X	Required	Required	X		X		X		X	X
General Engineering majors	X	X	X	X	X	X		X	X	X	X

**MATH 2320 is not required for the Associate of Science in Engineering degree; however, it is strongly recommended.*

Associate of Science

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Associate of Science

Program Code
ASCI.D001.UG

Program Type
Associate of Science

CIP
24.0102

Online Availability
This program can be completed fully online.

Program Requirements

Simple Requisites

Subplan

A collegiate degree related to the baccalaureate degree providing curricula in university parallel and pre-professional areas to students with a major in a science or a related discipline.

General Requirements for an Associate Degree:

1. A minimum of 25 percent of the semester credit hours required for the degree must be earned in residence at TCC.
2. A minimum cumulative grade point average of 2.0 is required for all TCC courses.
3. A minimum grade point average of 2.0 is required for all courses presented for graduation.
4. All requirements of the degree must be satisfactorily completed.
5. All financial obligations to the College must be met.
6. Students applying to receive a subsequent two-year degree must complete an additional 15 hours in residence.

- General Requirement for Graduation
- College Readiness
- Transfer

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- ENGL 1301 - Composition I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)
- Mathematics (3 Semester Credit Hours)
- Creative Arts (3 Semester Credit Hours)
- American History I (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- GOVT 2305 - Federal Govrnment (Federal Const & Top)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Language, Culture and Philosophy (3 Semester Credit Hours)
- Social and Behavioral Science (3 Semester Credit Hours)
- Component Area Option (3 Semester Credit Hours)
- American History II (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Life and Physical Sciences (4 Semester Credit Hours)
- Associate of Science Elective (3 Semester Credit Hours)
- Associate of Science Elective (3 Semester Credit Hours)
- Associate of Science Elective (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- KINE 1164 - Intro to Physical Fitness & Wellness

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Life and Physical Sciences (4 Semester Credit Hours)
- Associate of Science Elective (3 Semester Credit Hours)
- Associate of Science Elective (3 Semester Credit Hours)
- Associate of Science Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Students interested in an Area of Emphasis may follow the recommended course sequence linked below, which aligns with the Associate of Science degree requirements.

Areas of Emphasis:

- Mathematics
- Chemistry

Professional Pilot, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Professional Pilot, AAS

Program Code
ATPP.D004.UG

Program Type
Associate of Applied Science

CIP
49.0102

Learn More
Learn more about Professional Pilot

Credential Map
Professional Pilot.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AIRP 1451 - Instrument Ground School
- AIRP 1307 - Aviation Meteorology
- AIRP 1341 - Advanced Air Navigation
- AIRP 2250 - Instrument Flight
  OR AIRP 2270 - Instrument Flight, Helicopter

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AIRP 2337 - Commercial Ground School
- AIRP 1343 - Aerodynamics
- AIRP 2333 - Aircraft Systems
- AIRP 1255 - Intermediate Flight
  OR AIRP 1271 - Intermediate Flight, Helicopter
- ENGL 1301 - Composition I

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:

- AIRP 2239 - Commercial Flight
  OR AIRP 2271 - Commercial Flight, Helicopter

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AIRP 1345 - Aviation Safety
- AIRP 1347 - Human Factors in Aviation
- AVIM 2337 - Aviation Law
- AIRP 2151 - Multiengine Flight
  OR AIRP 2174 - Topics & Trends - Helicopter Industry

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Social and Behavioral Science (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Term V

Complete ALL of the following Courses:

- AIRP 2349 - Instructor Ground School
- AIRP 1301 - Air Navigation
- AIRP 2236 - Certified Flight Instructor - Flight

OR AIRP 2272 - Certified Flight Instructor-Helicopter
- AIRP 2242 - Flight Instructor-Instrument Flight
  OR AIRP 2273 - Flight Instructor-Instrument Helicopter

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

No selection provided

- Apply for Graduation

Total Semester Hours
60

Airplane Specialty Track	Helicopter Specialty Track
AIRP 2250 - Instrument Flight	AIRP 2270 - Instrument Flight, Helicopter
AIRP 1255 - Intermediate Flight	AIRP 1271 - Intermediate Flight, Helicopter
AIRP 2239 - Commercial Flight	AIRP 2271 - Commercial Flight, Helicopter
AIRP 2236 - Certified Flight Instructor-Flight	AIRP 2272 - Certified Flight Instructor–Helicopter

Selective Admission Criteria:

All flight courses are subject to FAA rules and regulations (CFR Title 14). Possession of a current FAA medical certificate is required for all flight courses. All AIRP courses must be passed with a grade of "B" or higher.

All applicants to the Professional Pilot Program are required to attend an information session and the program orientation prior to the application deadline and registration. Complete details regarding the Professional Pilot program can be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Hold an FAA Class 2 Medical Certificate*
- *Have a current driver's license or passport*

Prior to application, students with international college credits must contact International Student Admissions and Compliance 817-515-1570.

TCC aviation programs are regulated by the Federal Aviation Administration. Once admitted into the program, students must obtain a minimum grade of "B" in all technical courses and meet mandatory attendance requirements.

Students should be aware that employment in aviation-related fields may be subject to alcohol and drug screenings, as well as criminal background checks.

In addition, the following are program requirements:

- *Students must attend a mandatory scheduled orientation session prior to enrollment.*
- *Students must be released by the department to register for any AIRP course.*
- *Students must maintain a minimum balance in their student flight account to remain eligible for flight status.*

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Commercial Pilot

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Commercial Pilot

Program Code
ATPPT005.UG

Program Type
Level 1 Certificate

CIP
49.0102

Learn More
Learn more about Professional Pilot

Credential Map
Professional Pilot.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AIRP 1313 - Introduction to Aviation
- AIRP 1317 - Private Pilot Ground School
- AIRP 1301 - Air Navigation
- AIRP 1215 - Private Flight
  OR AIRP 1270 - Private Flight, Helicopter

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AIRP 1451 - Instrument Ground School
- AIRP 1307 - Aviation Meteorology
- AIRP 1341 - Advanced Air Navigation
- AIRP 2250 - Instrument Flight
  OR AIRP 2270 - Instrument Flight, Helicopter

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AIRP 1345 - Aviation Safety
- AIRP 1255 - Intermediate Flight
  OR AIRP 1271 - Intermediate Flight, Helicopter

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AIRP 2337 - Commercial Ground School
- AIRP 2333 - Aircraft Systems
- AIRP 1343 - Aerodynamics
- AIRP 2239 - Commercial Flight
  OR AIRP 2271 - Commercial Flight, Helicopter

- Apply for Graduation

Total Semester Hours
39

Airplane Specialty Track	Helicopter Specialty Track
AIRP 1215 - Private Flight	AIRP 1270 - Private Flight, Helicopter
AIRP 2250 - Instrument Flight	AIRP 2270 - Instrument Flight, Helicopter
AIRP 1255 - Intermediate Flight	AIRP 1271 - Intermediate Flight, Helicopter
AIRP 2239 - Commercial Flight	AIRP 2271 - Commercial Flight, Helicopter

Selective Admission Criteria:

All applicants to the Professional Pilot Program are required to attend an information session and the program orientation prior to the application deadline and registration. Complete details regarding the Professional Pilot program admissions process may be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Hold an FAA Class 2 Medical Certificate*
- *Have a current driver's license or passport*

Prior to application, students with international college credits must contact International Student Admissions and Compliance at 817-515-1570.

TCC aviation programs are regulated by the Federal Aviation Administration. Once admitted into the program, students must obtain a minimum grade of "B" in all technical courses and meet mandatory attendance requirements.

Students should be aware that employment in aviation-related fields may be subject to alcohol and drug screenings, as well as criminal background checks.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Automotive Collision Repair, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Automotive Collision Repair, AAS

Program Code
AUTC.D001.UG

Program Type
Associate of Applied Science

CIP
47.0603

Learn More
Learn more about Automotive Collision Repair

Credential Map
Automotive Collision Repair.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ABDR 1519 - Basic Metal Repair
- ABDR 1555 - Non-Structural Metal Repair
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ABDR 2402 - Auto Body Mechanical/Electrical Service
- ABDR 2437 - Structural Analysis and Damage Repair V
- ABDR 1307 - Collision Repair Welding

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- COSC 1301 - Introduction to Computing

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ABDR 1271 - Current Trends in Automotive Collision
- ABDR 1431 - Basic Refinishing
- ABDR 1558 - Intermediate Refinishing
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required courses

Complete ALL of the following Courses:
- ABDR 2549 - Advanced Refinishing
- ABDR 2551 - Specialized Refinishing Techniques

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Automotive Metal Repair

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Automotive Metal Repair

Program Code
AUTC.T001.UG

Program Type
Level 1 Certificate

CIP
47.0603

Learn More
Learn more about Automotive Collision Repair

Credential Map
Automotive Collision Repair.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ABDR 1519 - Basic Metal Repair
- ABDR 1555 - Non-Structural Metal Repair

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ABDR 2437 - Structural Analysis and Damage Repair V
- ABDR 2402 - Auto Body Mechanical/Electrical Service
- ABDR 1307 - Collision Repair Welding

- Apply for Graduation

Total Semester Hours
21

Learning Outcomes

Automotive Refinishing

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Automotive Refinishing

Program Code
AUTC.T002.UG

Program Type
Level 1 Certificate

CIP
47.0603

Learn More
Learn more about Automotive Collision Repair

Credential Map
Automotive Collision Repair.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ABDR 1431 - Basic Refinishing
- ABDR 1558 - Intermediate Refinishing
- ABDR 1271 - Current Trends in Automotive Collision

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ABDR 2549 - Advanced Refinishing
- ABDR 2551 - Specialized Refinishing Techniques

- Apply for Graduation

Total Semester Hours
21

Learning Outcomes

Automotive Service Technology, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Automotive Service Technology, AAS

Program Code
AUTS.D001.UG

Program Type
Associate of Applied Science

CIP
47.0604

Credential Map
Automotive Service Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AUMT 1405 - Introduction to Automotive Technology
- AUMT 1407 - Automotive Electrical Systems
- AUMT 2321 - Automotive Electrical Diagnos and Repair

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AUMT 1416 - Automotive Suspension & Steering Systems
- AUMT 1410 - Automotive Brake Systems
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AUMT 1419 - Automotive Engine Repair
- AUMT 2311 - Automotive Electronic Controls

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AUMT 2317 - Automotive Engine Performance Analysis I
- AUMT 2434 - Auto Engine Performance Analysis II
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AUMT 2313 - Automotive Drive Train and Axles
- AUMT 2325 - Auto Automatic Transmission/Transaxle

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Term VI

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AUMT 1345 - Automotive Climate Control Systems
- AUMT 2307 - Hybrid and/or BEV Systems Diagnostics
  OR AUMT 2388 - Intern Auto/Automotive Mech Tech/ Techn
  OR AUMT 2328 - Automotive Service

- Apply for Graduation

Total Semester Hours
60

Students enrolled in the Automotive Service Technology programs are required to furnish their own hand tools for use in laboratory classes.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Automotive Service Technology: Toyota Technician Education Network, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Automotive Service Technology: Toyota Technician Education Network, AAS

Program Code
AUTS.D002.UG

Program Type
Associate of Applied Science

CIP
47.0604

Learn More
Learn more about Automotive Service Technology T-TEN

Credential Map
Automotive Service Technology-Toyota Technician Education Network.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AUMT 1305 - Introduction to Automotive Technology
- AUMT 1307 - Automotive Electrical Systems
- AUMT 2321 - Automotive Electrical Diagnos and Repair
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1314 - College Algebra

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- AUMT 1310 - Automotive Brake Systems
- AUMT 1316 - Automotive Suspension & Steering Systems
- AUMT 1345 - Automotive Climate Control Systems

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AUMT 1306 - Automotive Engine Removal and Install
- AUMT 1319 - Automotive Engine Repair
- AUMT 2388 - Intern Auto/Automotive Mech Tech/ Techn

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AUMT 2311 - Automotive Electronic Controls
- AUMT 2317 - Automotive Engine Performance Analysis I
- AUMT 2334 - Auto Engine Performance Analysis II

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AUMT 2313 - Automotive Drive Train and Axles
- AUMT 2325 - Auto Automatic Transmission/Transaxle
- AUMT 2307 - Hybrid and/or BEV Systems Diagnostics
- DRAM 2366 - Film Appreciation

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Engine Analysis Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Engine Analysis Technician

Program Code
AUTS.T001.UG

Program Type
Level 1 Certificate

CIP
47.0604

Learn More
Learn more about Automotive Service Technology

Credential Map
Automotive Service Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AUMT 1405 - Introduction to Automotive Technology
- AUMT 1407 - Automotive Electrical Systems

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AUMT 2317 - Automotive Engine Performance Analysis I
- AUMT 2434 - Auto Engine Performance Analysis II

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AUMT 2321 - Automotive Electrical Diagnos and Repair
- AUMT 2307 - Hybrid and/or BEV Systems Diagnostics
  OR AUMT 2388 - Intern Auto/Automotive Mech Tech/ Techn

- Apply for Graduation

Total Semester Hours
21

Students enrolled in the Automotive Service Technology Programs are required to furnish their own hand tools for use in laboratory classes.

Learning Outcomes

Heavy Line Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Heavy Line Technician

Program Code
AUTS.T002.UG

Program Type
Level 1 Certificate

CIP
47.0604

Learn More
Learn more about Automotive Service Technology

Credential Map
Automotive Service Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AUMT 1405 - Introduction to Automotive Technology
- AUMT 1407 - Automotive Electrical Systems
- AUMT 2313 - Automotive Drive Train and Axles
- AUMT 2325 - Auto Automatic Transmission/Transaxle

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AUMT 1416 - Automotive Suspension & Steering Systems
- AUMT 1419 - Automotive Engine Repair

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AUMT 1410 - Automotive Brake Systems
- AUMT 1345 - Automotive Climate Control Systems

- Apply for Graduation

Total Semester Hours
29

Students enrolled in the Automotive Service Technology Programs are required to furnish their own hand tools for use in laboratory classes.

Learning Outcomes

General Service Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
General Service Technician

Program Code
AUTS.T003.UG

Program Type
Occupational Skills Award

CIP
47.0604

Learn More
Learn more about Automotive Service Technology

Credential Map
Automotive Service Technology.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AUMT 1405 - Introduction to Automotive Technology
- AUMT 1407 - Automotive Electrical Systems
- AUMT 1410 - Automotive Brake Systems

- Apply for Graduation

Total Semester Hours
12

Students enrolled in the Automotive Service Technology Programs are required to furnish their own hand tools for use in laboratory classes.

Learning Outcomes

Toyota General Service Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Toyota General Service Technician

Program Code
AUTS.T004.UG

Program Type
Level 1 Certificate

CIP
47.0604

Learn More
Learn more about Automotive Service Technology T-TEN

Credential Map
Automotive Service Technology-Toyota Technician Education Network.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AUMT 1305 - Introduction to Automotive Technology
- AUMT 1307 - Automotive Electrical Systems
- AUMT 2321 - Automotive Electrical Diagnos and Repair

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AUMT 1316 - Automotive Suspension & Steering Systems
- AUMT 1310 - Automotive Brake Systems
- AUMT 1345 - Automotive Climate Control Systems
- AUMT 2317 - Automotive Engine Performance Analysis I

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AUMT 2388 - Intern Auto/Automotive Mech Tech/ Techn

- Apply for Graduation

Total Semester Hours
24

Learning Outcomes

Toyota Service Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Toyota Service Technician

Program Code
AUTS.T005.UG

Program Type
Level 2 Certificate

CIP
47.0604

Credential Map
Automotive Service Technology-Toyota Technician Education Network.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AUMT 1305 - Introduction to Automotive Technology
- AUMT 1307 - Automotive Electrical Systems
- AUMT 2321 - Automotive Electrical Diagnos and Repair
- AUMT 1316 - Automotive Suspension & Steering Systems

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AUMT 1310 - Automotive Brake Systems
- AUMT 1345 - Automotive Climate Control Systems
- AUMT 2317 - Automotive Engine Performance Analysis I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- AUMT 2388 - Intern Auto/Automotive Mech Tech/ Techn

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AUMT 1306 - Automotive Engine Removal and Install
- AUMT 2311 - Automotive Electronic Controls
- AUMT 1319 - Automotive Engine Repair
- AUMT 2313 - Automotive Drive Train and Axles
- AUMT 2334 - Auto Engine Performance Analysis II
- AUMT 2325 - Auto Automatic Transmission/Transaxle

- Apply for Graduation

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Aviation Maintenance Technology: Airframe, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Aviation Maintenance Technology: Airframe, AAS

Program Code
AVIA.D002.UG

Program Type
Associate of Applied Science

CIP
47.0607

Learn More
Learn more about Aviation Maintenance Technology

Credential Map
Aviation Maintenance Technology-Airframe.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 1101 - Introduction to Aviation
- AERM 1205 - Weight and Balance
- AERM 1208 - Federal Aviation Regulations
- AERM 1303 - Shop Practices
- AERM 1310 - Ground Operations
- AERM 1314 - Basic Electricity
- AERM 1315 - Aviation Science

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 1243 - Instruments & Navigation/Communication
- AERM 1254 - Aircraft Composites
- AERM 1345 - Airframe Electrical Systems
- AERM 1347 - Airframe Auxiliary Systems
- AERM 1349 - Hydraulic, Pneumatic, and Fuel Systems
- AERM 1350 - Landing Gear Systems

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 1141 - Wood, Fabric, and Finishes
- AERM 1153 - Aircraft Welding
- AERM 1452 - Aircraft Sheet Metal
- AERM 2231 - Airframe Inspection
- AERM 2233 - Assembly and Rigging

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 2171 - Oral and Practical Exams, General
- AERM 2172 - Oral and Practical Exams, Airframe

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- ENGL 1301 - Composition I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)
- Government and Political Science, or Social and Behavioral Sciences (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

***Selective Admission Criteria*:**

All applicants to the Aviation Maintenance Technology Program are required to attend an information session as well as the program orientation prior to the application deadline and registration. Complete details regarding the Aviation Maintenance Technology program can be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*

Prior to application, students with international college credits must contact International Student Admissions and Compliance 817-515-1570.

TCC aviation programs are regulated by the Federal Aviation Administration. Once admitted into the program, students must obtain a minimum grade of "C" in all technical courses and meet mandatory attendance requirements.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Aviation Maintenance Technology: Powerplant, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Aviation Maintenance Technology: Powerplant, AAS

Program Code
AVIA.D003.UG

Program Type
Associate of Applied Science

CIP
47.0608

Learn More
Learn more about Aviation Maintenance Technology

Credential Map
Aviation Maintenance Technology-Powerplant.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AERM 1101 - Introduction to Aviation
- AERM 1205 - Weight and Balance
- AERM 1208 - Federal Aviation Regulations
- AERM 1303 - Shop Practices
- AERM 1310 - Ground Operations
- AERM 1314 - Basic Electricity
- AERM 1315 - Aviation Science

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AERM 1340 - Aircraft Propellers
- AERM 1344 - Aircraft Reciprocating Engines
- AERM 1351 - Aircraft Turbine Engine Theory
- AERM 1456 - Aircraft Powerplant Electrical

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:

- ENGL 1301 - Composition I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Mathematics (3 Semester Credit Hours)
- Government and Political Science, or Social and Behavioral Sciences (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AERM 1357 - Fuel Metering and Induction Systems
- AERM 2351 - Aircraft Turbine Engine Overhaul
- AERM 2547 - Aircraft Reciprocating Engine Overhaul
- AERM 2252 - Aircraft Powerplant Inspection

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- AERM 2171 - Oral and Practical Exams, General
- AERM 2173 - Oral and Practical Exams, Powerplant

- Apply for Graduation

Total Semester Hours
60

Selective Admission Criteria:

All applicants to the Aviation Maintenance Technology Program are required to attend an information session and the program orientation prior to the application deadline and registration. Complete details regarding the Aviation Maintenance Technology program can be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*

Prior to application, students with international college credits must contact International Student Admissions and Compliance 817-515-1570.

TCC aviation programs are regulated by the Federal Aviation Administration. Once admitted into the program, students must obtain a minimum grade of "C" in all technical courses and meet mandatory attendance requirements.

Students should be aware that employment in aviation related fields may be subject to alcohol and drug screenings, and criminal background checks.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Aviation Maintenance Technology-Airframe

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Aviation Maintenance Technology-Airframe

Program Code
AVIA.T001.UG

Program Type
Level 2 Certificate

CIP
47.0607

Learn More
Learn more about Aviation Maintenance Technology

Credential Map
Aviation Maintenance Technology-Airframe.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 1101 - Introduction to Aviation
- AERM 1205 - Weight and Balance
- AERM 1208 - Federal Aviation Regulations
- AERM 1303 - Shop Practices
- AERM 1310 - Ground Operations
- AERM 1314 - Basic Electricity
- AERM 1315 - Aviation Science

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 1243 - Instruments & Navigation/Communication
- AERM 1254 - Aircraft Composites
- AERM 1345 - Airframe Electrical Systems
- AERM 1347 - Airframe Auxiliary Systems
- AERM 1349 - Hydraulic, Pneumatic, and Fuel Systems
- AERM 1350 - Landing Gear Systems

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 1141 - Wood, Fabric, and Finishes
- AERM 1153 - Aircraft Welding
- AERM 1452 - Aircraft Sheet Metal
- AERM 2231 - Airframe Inspection
- AERM 2233 - Assembly and Rigging

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:
- AERM 2171 - Oral and Practical Exams, General
- AERM 2172 - Oral and Practical Exams, Airframe

- Apply for Graduation

Total Semester Hours
45

Selective Admission Criteria:

All applicants to the Aviation Maintenance Technology Program are required to attend an information session and the program orientation prior to the application deadline and registration. Complete details regarding the Aviation Maintenance Technology program can be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*

Prior to application, students with international college credits must contact International Student Admissions and Compliance 817-515-1570.

TCC aviation programs are regulated by the Federal Aviation Administration. Once admitted into the program, students must obtain a minimum grade of "C" in all technical courses and meet mandatory attendance requirements.

Students should be aware that employment in aviation related fields may be subject to alcohol and drug screenings as well as criminal background checks.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Aviation Maintenance Technology-Powerplant

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Aviation Maintenance Technology-Powerplant

Program Code
AVIA.T002.UG

Program Type
Level 2 Certificate

CIP
47.0608

Learn More
Learn more about Aviation Maintenance Technology

Credential Map
Aviation Maintenance Technology-Powerplant.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AERM 1101 - Introduction to Aviation
- AERM 1205 - Weight and Balance
- AERM 1208 - Federal Aviation Regulations
- AERM 1303 - Shop Practices
- AERM 1310 - Ground Operations
- AERM 1314 - Basic Electricity
- AERM 1315 - Aviation Science

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AERM 1340 - Aircraft Propellers
- AERM 1344 - Aircraft Reciprocating Engines
- AERM 1351 - Aircraft Turbine Engine Theory
- AERM 1456 - Aircraft Powerplant Electrical
- AERM 1357 - Fuel Metering and Induction Systems

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AERM 2351 - Aircraft Turbine Engine Overhaul
- AERM 2547 - Aircraft Reciprocating Engine Overhaul
- AERM 2252 - Aircraft Powerplant Inspection

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AERM 2171 - Oral and Practical Exams, General
- AERM 2173 - Oral and Practical Exams, Powerplant

- Apply for Graduation

Total Semester Hours
45

Selective Admission Criteria:

All applicants to the Aviation Maintenance Technology Program are required to attend an information session and the program orientation prior to the application deadline and registration. Complete details regarding the Aviation Maintenance Technology program can be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*

Prior to application, students with international college credits must contact International Student Admissions and Compliance 817-515-1570.

TCC aviation programs are regulated by the Federal Aviation Administration. Once admitted into the program, students must obtain a minimum grade of "C" in all technical courses and meet mandatory attendance requirements.

Students should be aware that employment in aviation related fields may be subject to alcohol and drug screenings, and criminal background checks.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Advanced Composite Technology

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Advanced Composite Technology

Program Code
AVIA.T004.UG

Program Type
Level 1 Certificate

CIP
47.0607

Learn More
Learn more about Advanced Composite Technology

Credential Map
Aviation Maintenance Technology-Airframe.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AERM 1315 - Aviation Science
- AERM 1254 - Aircraft Composites
- AERM 1303 - Shop Practices

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- PLTC 1303 - Plastic Composites
- PLTC 1271 - Composite Bonding
- AERM 2359 - Advanced Composite Repair

- Apply for Graduation

Total Semester Hours
16

Avionics Line Maintenance

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Avionics Line Maintenance

Program Code
AVIA.T005.UG

Program Type
Level 1 Certificate

CIP
47.0607

Learn More
Learn more about Avionics Line Maintenance

Credential Map
Aviation Maintenance Technology-Airframe.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AERM 1205 - Weight and Balance
- AERM 1208 - Federal Aviation Regulations
- AERM 1314 - Basic Electricity
- AERM 1315 - Aviation Science
- AERM 1243 - Instruments & Navigation/Communication

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AERM 1345 - Airframe Electrical Systems
- AVNC 1303 - Intro to Aviation Electronic Systems
- AVNC 1370 - Aircraft Comm Systems Line Maintenance
- AVNC 1371 - Aircraft Navigation Syst Line Maintenanc

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- AVNC 1372 - Air Traffic Control Systems
- AVNC 1343 - Aviation Electric/Electron Syst Install

- Apply for Graduation

Total Semester Hours
30

Learning Outcomes

Business Administration: Accounting Assistant, AAS

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Connect

Program Name
Business Administration: Accounting Assistant, AAS

Program Code
BACC.D001.UG

Program Type
Associate of Applied Science

CIP
52.0302

Online Availability
This program can be completed fully online.

Learn More
Learn more about Accounting Assistant

Credential Map
Business Administration-Accounting Assistant.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- ACNT 1313 - Computerized Accounting Applications
- BCIS 1305 - Business Computer Applications
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Business Administration Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- ACNT 1311 - Introduction to Computerized Accounting
- BUSI 1301 - Business Principles

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Component Area Option (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BMGT 1305 - Communications in Management
- BMGT 1327 - Principles of Management
- BMGT 1341 - Business Ethics
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:

- BUSG 2300 - Business Leadership Application

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Accounting Assistant I

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Connect

Program Name
Accounting Assistant I

Program Code
BACC.T001.UG

Program Type
Level 1 Certificate

CIP
52.0302

Online Availability
This program can be completed fully online.

Learn More
Learn more about Accounting Assistant

Credential Map
Business Administration-Accounting Assistant.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- BCIS 1305 - Business Computer Applications
- ACNT 1313 - Computerized Accounting Applications
- ENGL 1301 - Composition I
  OR BMGT 1305 - Communications in Management
  OR MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1316 - Plane Trigonometry
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1342 - Elementary Statistical Methods

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
15

Accounting Assistant II

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Connect

Program Name
Accounting Assistant II

Program Code
BACC.T002.UG

Program Type
Level 1 Certificate

CIP
52.0302

Online Availability
This program can be completed fully online.

Learn More
Learn more about Accounting Assistant

Credential Map
Business Administration-Accounting Assistant.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- ACNT 1313 - Computerized Accounting Applications
- BCIS 1305 - Business Computer Applications
- ENGL 1301 - Composition I
  OR BMGT 1305 - Communications in Management
  OR MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1316 - Plane Trigonometry
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1342 - Elementary Statistical Methods

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- ACNT 1311 - Introduction to Computerized Accounting

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Business Administration Elective (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
24

Accounting Assistant III

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Connect

Program Name
Accounting Assistant III

Program Code
BACC.T003.UG

Program Type
Level 2 Certificate

CIP
52.0302

Online Availability
This program can be completed fully online.

Learn More
Learn more about Accounting Assistant

Credential Map
Business Administration-Accounting Assistant.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ACCT 2301 - Principles of Financial Accounting
- ACNT 1313 - Computerized Accounting Applications
- BCIS 1305 - Business Computer Applications
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Business Administration Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required courses

Complete ALL of the following Courses:
- ACCT 2302 - Principles of Managerial Accounting
- ACNT 1311 - Introduction to Computerized Accounting
- BUSI 1301 - Business Principles

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Component Area Option (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BMGT 1305 - Communications in Management
- BMGT 1327 - Principles of Management
- BMGT 1341 - Business Ethics
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Business Administration: Business, AAS

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Business Administration: Business, AAS

Program Code
BBUS.D001.UG

Program Type
Associate of Applied Science

CIP
52.0101

Online Availability
This program can be completed fully online.

Learn More
Learn more about Business Administration

Credential Map
Business Administration-Business.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 1301 - Business Principles
- ACCT 2301 - Principles of Financial Accounting
- ECON 2301 - Principles of Macroeconomics

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Business Administration Elective (3 Semester Credit Hours)
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ACCT 2302 - Principles of Managerial Accounting
- ECON 2302 - Principles of Microeconomics
- BUSI 2301 - Business Law
- MRKG 1311 - Principles of Marketing
  OR MRKG 2333 - Principles of Selling

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Business Administration Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BMGT 1305 - Communications in Management
- BMGT 1327 - Principles of Management
- BMGT 1341 - Business Ethics
- BCIS 1305 - Business Computer Applications
- ENGL 1301 - Composition I

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSG 2300 - Business Leadership Application
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Component Area Option (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Business I

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Business I

Program Code
BBUS.T001.UG

Program Type
Level 1 Certificate

CIP
52.0101

Online Availability
This program can be completed fully online.

Learn More
Learn more about Business

Credential Map
Business Administration-Business.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- BUSI 1301 - Business Principles
- ECON 2301 - Principles of Macroeconomics
- MRKG 1311 - Principles of Marketing
  OR MRKG 2333 - Principles of Selling

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- ECON 2302 - Principles of Microeconomics
- BUSI 2301 - Business Law

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
24

Learning Outcomes

Business II

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Business II

Program Code
BBUS.T002.UG

Program Type
Level 2 Certificate

CIP
52.0101

Online Availability
This program can be completed fully online.

Learn More
Learn more about Business

Credential Map
Business Administration-Business.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- BUSI 1301 - Business Principles
- ECON 2301 - Principles of Macroeconomics
- MRKG 1311 - Principles of Marketing
  OR MRKG 2333 - Principles of Selling

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Business Administration Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- BCIS 1305 - Business Computer Applications
- BMGT 1305 - Communications in Management
- BUSI 2301 - Business Law
- ECON 2302 - Principles of Microeconomics

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BMGT 1327 - Principles of Management
- BMGT 1341 - Business Ethics
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Business Administration: Entrepreneurship & Small Business Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northeast, Northwest, Connect

Program Name
Business Administration: Entrepreneurship & Small Business Management, AAS

Program Code
BESB.D001.UG

Program Type
Associate of Applied Science

CIP
52.0703

Online Availability
This program can be completed fully online.

Learn More
Learn more about Entrepreneurship and Small Business Management

Credential Map
Business Administration-Entrepreneurship and Small Business Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACNT 1303 - Introduction to Accounting I
- ACNT 1313 - Computerized Accounting Applications
- BUSG 1370 - Entrepreneurial Mindset
- MRKG 1311 - Principles of Marketing
  OR MRKG 2333 - Principles of Selling
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1342 - Elementary Statistical Methods

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACNT 1311 - Introduction to Computerized Accounting
- BUSG 1307 - Entrepreneurship and Economic Develop
- BUSG 1315 - Small Business Operations
- ENGL 1301 - Composition I
- MRKG 2312 - e-Commerce Marketing

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BUSG 1341 - Small Business Financing
- BUSG 2305 - Business Law/Contracts
- ENGL 2311 - Technical and Business Writing
- HRPO 2301 - Human Resources Management

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BUSG 2309 - Small Business Manage/Entrepreneurship
- BUSG 2300 - Business Leadership Application

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Entrepreneurship & Small Business Management Elective

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Entrepreneurship and Small Business Management I

General

TCC Pathway
Business & Industry

Location(s)
Northeast, Northwest, Connect

Program Name
Entrepreneurship and Small Business Management I

Program Code
BESB.T001.UG

Program Type
Level 1 Certificate

CIP
52.0701

Online Availability
This program can be completed fully online.

Learn More
Learn more about Entrepreneurship & Small Business Management

Credential Map
Business Administration-Entrepreneurship and Small Business Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACNT 1303 - Introduction to Accounting I
- ACNT 1313 - Computerized Accounting Applications
- BUSG 1315 - Small Business Operations
- MRKG 1311 - Principles of Marketing
  OR MRKG 2333 - Principles of Selling

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BUSG 1341 - Small Business Financing
- BUSG 2309 - Small Business Manage/Entrepreneurship
- BUSG 2305 - Business Law/Contracts

- Apply for Graduation

Total Semester Hours
21

Learning Outcomes

Entrepreneurship and Small Business Management II

General

TCC Pathway
Business & Industry

Location(s)
Northeast, Northwest, Connect

Program Name
Entrepreneurship and Small Business Management II

Program Code
BESB.T002.UG

Program Type
Level 2 Certificate

CIP
52.0703

Online Availability
This program can be completed fully online.

Learn More
Learn more about Entrepreneurship & Small Business Management

Credential Map
Business Administration-Entrepreneurship and Small Business Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BUSG 1370 - Entrepreneurial Mindset
- ACNT 1303 - Introduction to Accounting I
- ACNT 1313 - Computerized Accounting Applications
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1342 - Elementary Statistical Methods
- MRKG 1311 - Principles of Marketing
  OR MRKG 2333 - Principles of Selling

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACNT 1311 - Introduction to Computerized Accounting
- BUSG 1307 - Entrepreneurship and Economic Develop
- BUSG 1315 - Small Business Operations
- HRPO 2301 - Human Resources Management
- MRKG 2312 - e-Commerce Marketing

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BUSG 1341 - Small Business Financing
- BUSG 2305 - Business Law/Contracts
- BUSG 2309 - Small Business Manage/Entrepreneurship

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Entrepreneurship & Small Business Management Elective

- Apply for Graduation

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Small Business Associate

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Small Business Associate

Program Code
BESB.T003.UG

Program Type
Occupational Skills Award

CIP
52.0701

Learn More
Learn more about Entrepreneurship & Small Business Management

Credential Map
Business Administration-Entrepreneurship and Small Business Management.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BUSG 1315 - Small Business Operations
- BUSG 1341 - Small Business Financing
- BUSG 2309 - Small Business Manage/Entrepreneurship
- BCIS 1305 - Business Computer Applications
  OR MRKG 1311 - Principles of Marketing
  OR MRKG 2333 - Principles of Selling

- Apply for Graduation

Total Semester Hours
12

Learning Outcomes

Business Administration: Fashion Merchandising, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northeast

Program Name
Business Administration: Fashion Merchandising, AAS

Program Code
BFSH.D001.UG

Program Type
Associate of Applied Science

CIP
52.1902

Learn More
Learn more about Fashion Merchandising

Credential Map
Business Administration-Fashion Merchandising.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BCIS 1305 - Business Computer Applications
- BUSI 1301 - Business Principles
- FSHN 1312 - Apparel and Accessories Marketing Operat
- FSHN 2309 - Fashion Image
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BMGT 1327 - Principles of Management
- FSHN 1301 - Textiles
- FSHN 2301 - Fashion Promotion
- FSHN 2305 - Fashion Retailing

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- BMGT 1305 - Communications in Management
- BMGT 1341 - Business Ethics
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Business Administration Elective (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- BUSG 2300 - Business Leadership Application

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Component Area Option (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Fashion Merchandising I

General

TCC Pathway
Business & Industry

Location(s)
Northeast

Program Name
Fashion Merchandising I

Program Code
BFSH.T001.UG

Program Type
Level 1 Certificate

CIP
52.1902

Learn More
Learn more about Fashion Merchandising

Credential Map
Business Administration-Fashion Merchandising.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BCIS 1305 - Business Computer Applications
- FSHN 1312 - Apparel and Accessories Marketing Operat
- FSHN 2309 - Fashion Image
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- FSHN 1301 - Textiles
- FSHN 2301 - Fashion Promotion
- FSHN 2305 - Fashion Retailing

- Apply for Graduation

Total Semester Hours
21

Learning Outcomes

Fashion Merchandising II

General

TCC Pathway
Business & Industry

Location(s)
Northeast

Program Name
Fashion Merchandising II

Program Code
BFSH.T002.UG

Program Type
Level 2 Certificate

CIP
52.1902

Learn More
Learn more about Fashion Merchandising

Credential Map
Business Administration-Fashion Merchandising.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- BCIS 1305 - Business Computer Applications
- BUSI 1301 - Business Principles
- FSHN 1312 - Apparel and Accessories Marketing Operat
- FSHN 2309 - Fashion Image

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- BMGT 1327 - Principles of Management
- FSHN 1301 - Textiles
- FSHN 2301 - Fashion Promotion
- FSHN 2305 - Fashion Retailing

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- BMGT 1305 - Communications in Management
- BMGT 1341 - Business Ethics
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Fashion Sales Associate

General

TCC Pathway
Business & Industry

Location(s)
Northeast

Program Name
Fashion Sales Associate

Program Code
BFSH.T003.UG

Program Type
Occupational Skills Award

CIP
52.1902

Learn More
Learn more about Fashion Merchandising

Credential Map
Business Administration-Fashion Merchandising.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- FSHN 1301 - Textiles
- FSHN 1312 - Apparel and Accessories Marketing Operat
- FSHN 2305 - Fashion Retailing
- FSHN 2309 - Fashion Image

- Apply for Graduation

Total Semester Hours
12

Learning Outcomes

Business Administration: Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Southeast, Connect

Program Name
Business Administration: Management, AAS

Program Code
BMNG.D001.UG

Program Type
Associate of Applied Science

CIP
52.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Management

Credential Map
Business Administration-Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 1301 - Business Principles
- BMGT 1327 - Principles of Management
- ACCT 2301 - Principles of Financial Accounting
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ACCT 2302 - Principles of Managerial Accounting
- HRPO 1311 - Human Relations
  OR HRPO 2307 - Organizational Behavior
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Component Area Option (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BMGT 1341 - Business Ethics
- BCIS 1305 - Business Computer Applications
- BMGT 1301 - Supervision
- BMGT 2309 - Leadership

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HRPO 2301 - Human Resources Management
- BMGT 1305 - Communications in Management
- BUSG 2300 - Business Leadership Application

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Business Administration Elective (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Management I

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Southeast, Connect

Program Name
Management I

Program Code
BMNG.T001.UG

Program Type
Level 1 Certificate

CIP
52.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Management

Credential Map
Business Administration-Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HRPO 1311 - Human Relations
- BUSI 1301 - Business Principles
- BMGT 1327 - Principles of Management
- BCIS 1305 - Business Computer Applications

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HRPO 2301 - Human Resources Management
- BMGT 1301 - Supervision
- BMGT 1305 - Communications in Management
- BMGT 2309 - Leadership

- Apply for Graduation

Total Semester Hours
24

Learning Outcomes

Management II

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Southeast, Connect

Program Name
Management II

Program Code
BMNG.T002.UG

Program Type
Level 2 Certificate

CIP
52.0201

Online Availability
This program can be completed fully online.

Credential Map
Business Administration-Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BUSI 1301 - Business Principles
- BMGT 1327 - Principles of Management
- BCIS 1305 - Business Computer Applications
- ENGL 1301 - Composition I
- HRPO 1311 - Human Relations
  OR HRPO 2307 - Organizational Behavior

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HRPO 2301 - Human Resources Management
- BMGT 2309 - Leadership
- BMGT 1301 - Supervision
- ACCT 2301 - Principles of Financial Accounting
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BMGT 1305 - Communications in Management
- MRKG 1311 - Principles of Marketing
- BMGT 1341 - Business Ethics

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Business Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Retail Management

General

TCC Pathway
Business & Industry

Location(s)
Northeast, Southeast, Connect

Program Name
Retail Management

Program Code
BMNG.T003.UG

Program Type
Level 1 Certificate

CIP
52.0212

Online Availability
This program can be completed fully online.

Learn More
Learn more about Management

Credential Map
Business Administration-Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BCIS 1305 - Business Computer Applications
- BMGT 1327 - Principles of Management
- HRPO 1311 - Human Relations/Behav in Organizations (Inactive)
  OR HRPO 2307 - Organizational Behavior
- BMGT 1305 - Communications in Management
  OR SPCH 1311 - Introduction to Speech Communication
  OR SPCH 1321 - Business and Professional Communication

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MRKG 1311 - Principles of Marketing
- HRPO 2301 - Human Resources Management
- ACCT 2301 - Principles of Financial Accounting
- MRKG 1302 - Principles of Retailing

- Apply for Graduation

Total Semester Hours
24

Learning Outcomes

Business Administration: Marketing, AAS

General

TCC Pathway
Business & Industry

Location(s)
Trinity River, Connect

Program Name
Business Administration: Marketing, AAS

Program Code
BMRK.D001.UG

Program Type
Associate of Applied Science

CIP
52.1401

Online Availability
This program can be completed fully online.

Learn More
Learn more about Marketing

Credential Map
Business Administration-Marketing.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- MRKG 1301 - Customer Relationship Management
- MRKG 1311 - Principles of Marketing
- BCIS 1305 - Business Computer Applications
- BUSI 1301 - Business Principles
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- MRKG 2348 - Marketing Research and Strategies
- ENGL 2311 - Technical & Business Writing Honors
  OR ENGL 1302 - Composition II
- MRKG 2370 - Digital Marketing
- MRKG 2372 - Adv Customer Service & Analytics

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- BMGT 1341 - Business Ethics
- BMGT 1305 - Communications in Management
- MRKG 2371 - Strategies in Social Media

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- MRKG 2312 - e-Commerce Marketing
- MRKG 2381 - COOP Ed-marketing Mmgt General
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication
- MRKG 2381 - COOP Ed-marketing Mmgt General

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Digital Marketing

General

TCC Pathway
Business & Industry

Location(s)
Connect, Southeast, Trinity River

Program Name
Digital Marketing

Program Code
BMRK.T004.UG

Program Type
Level 1 Certificate

CIP
52.1404

Online Availability
This program can be completed fully online.

Learn More
Learn more about Marketing

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BCIS 1305 - Business Computer Applications
- MRKG 1301 - Customer Relationship Management
- MRKG 1311 - Principles of Marketing

Term II

Complete ALL of the following Courses:

- MRKG 2348 - Marketing Research and Strategies
- MRKG 2371 - Strategies in Social Media
- MRKG 2372 - Adv Customer Service & Analytics
- MRKG 2370 - Digital Marketing

Total Semester Hours
21

Social Media Marketing

General

TCC Pathway
Business & Industry

Location(s)
Connect, Southeast, Trinity River

Program Name
Social Media Marketing

Program Code
BMRK.T005.UG

Program Type
Level 2 Certificate

CIP
52.1404

Online Availability
This program can be completed fully online.

Learn More
Learn more about Marketing

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MRKG 1301 - Customer Relationship Management
- MRKG 1311 - Principles of Marketing
- BCIS 1305 - Business Computer Applications
- BUSI 1301 - Business Principles
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACCT 2301 - Principles of Financial Accounting
- MRKG 2348 - Marketing Research and Strategies
- ENGL 2311 - Technical and Business Writing
  OR ENGL 1302 - Composition II
- MRKG 2370 - Digital Marketing
- MRKG 2372 - Adv Customer Service & Analytics

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACCT 2302 - Principles of Managerial Accounting
- BMGT 1341 - Business Ethics
- BMGT 1305 - Communications in Management
- MRKG 2312 - e-Commerce Marketing
- MRKG 2371 - Strategies in Social Media

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Computer-Aided Drafting and Design Technology: Building/Civil Technology, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Computer-Aided Drafting and Design Technology: Building/Civil Technology, AAS

Program Code
CBCT.D001.UG

Program Type
Associate of Applied Science

CIP
15.1303

Learn More
Learn more about Computer-Aided Drafting & Design

Credential Map
Computer-Aided Drafting and Design Technology-Building or Civil Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 1305 - Introduction to Technical Drawing
- DFTG 1409 - Basic Computer-Aided Drafting
- ENGL 1301 - Composition I
- DFTG 1417 - Architectural Drafting-Residential

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 2421 - Topographical Drafting
- CNBT 1302 - Mech/Plumb/Elect System Construction I
- MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1332 - Contemporary Math (Quantitative Reason)

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 2428 - Architectural Drafting - Commercial
- SRVY 1301 - Introduction to Surveying
- DFTG 1430 - Civil Drafting I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 2431 - Advanced Technologies/Design & Drafting
- DFTG 2427 - Landscape Drafting
- DFTG 2440 - Solid Modeling/Design
- DFTG 2438 - Final Project - Advanced Drafting

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Building Technology

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Building Technology

Program Code
CBCT.T001.UG

Program Type
Level 1 Certificate

CIP
15.1303

Learn More
Learn more about Computer-Aided Drafting & Design

Credential Map
Computer-Aided Drafting and Design Technology-Building or Civil Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 1305 - Introduction to Technical Drawing
- DFTG 1409 - Basic Computer-Aided Drafting
- ENGL 1301 - Composition I
- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 1417 - Architectural Drafting-Residential
- DFTG 2428 - Architectural Drafting - Commercial
- DFTG 2431 - Advanced Technologies/Design & Drafting
- DFTG 2438 - Final Project - Advanced Drafting

- Apply for Graduation

Total Semester Hours
29

Civil Technology

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Civil Technology

Program Code
CBCT.T002.UG

Program Type
Level 1 Certificate

CIP
15.1304

Learn More
Learn more about Computer-Aided Drafting & Design

Credential Map
Computer-Aided Drafting and Design Technology-Building or Civil Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 1305 - Introduction to Technical Drawing
- DFTG 1409 - Basic Computer-Aided Drafting
- ENGL 1301 - Composition I
- DFTG 2421 - Topographical Drafting

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 2431 - Advanced Technologies/Design & Drafting
- DFTG 1430 - Civil Drafting I
- DFTG 2427 - Landscape Drafting
- DFTG 2438 - Final Project - Advanced Drafting

- Apply for Graduation

Total Semester Hours
30

Learning Outcomes

Child Development, AAS

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Child Development, AAS

Program Code
CHIL.D001.UG

Program Type
Associate of Applied Science

CIP
19.0706

Learn More
Learn more about Child Development

Credential Map
Child Development.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- KINE 1164 - Intro to Physical Fitness & Wellness
- TECA 1354 - Child Growth and Development
- TECA 1311 - Educating Young Children

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Child Development Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CDEC 1321 - The Infant and Toddler
- CDEC 1419 - Child Guidance
- TECA 1318 - Wellness of The Young Child

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Child Development Elective (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from the option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CDEC 1356 - Emergent Literacy for Early Childhood
- CDEC 1413 - Curriculum Resources Early Child Program
- TECA 1303 - Families, School and Community

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CDEC 1358 - Creative Arts for Early Childhood
- CDEC 1359 - Children With Special Needs
- CDEC 2386 - Internship-Child Care Provider/Assist

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Child Development Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

The following courses require an annual background check: CDEC 1321, CDEC 1413, CDEC 1419, CDEC 2386, TECA 1303, TECA 1311, TECA 1318, and TECA 1354

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Child Care Administration

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Child Care Administration

Program Code
CHIL.T002.UG

Program Type
Level 2 Certificate

CIP
19.0708

Learn More
Learn more about Child Development

Credential Map
Child Development.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- KINE 1164 - Intro to Physical Fitness & Wellness
- TECA 1354 - Child Growth and Development
- TECA 1311 - Educating Young Children

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CDEC 1321 - The Infant and Toddler
- CDEC 1419 - Child Guidance
- TECA 1318 - Wellness of The Young Child

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CDEC 1413 - Curriculum Resources Early Child Program
- CDEC 2326 - Admin of Programs for Children I
- TECA 1303 - Families, School and Community

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CDEC 1359 - Children With Special Needs
- CDEC 2328 - Admin of Programs for Children II

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Child Care Administration Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
39

The following courses require an annual background check: TECA 1303, TECA 1311, TECA 1318, TECA 1354, CDEC 1321, CDEC 1413, and CDEC 1419

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Preschool Child Care Provider

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Preschool Child Care Provider

Program Code
CHIL.T003.UG

Program Type
Level 1 Certificate

CIP
19.0709

Learn More
Learn more about Child Development

Credential Map
Child Development.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- KINE 1164 - Intro to Physical Fitness & Wellness
- TECA 1354 - Child Growth and Development
- TECA 1311 - Educating Young Children

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CDEC 1321 - The Infant and Toddler
- CDEC 1419 - Child Guidance
- TECA 1318 - Wellness of The Young Child

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CDEC 1323 - Observation and Assessment
- CDEC 1359 - Children With Special Needs
- CDEC 1413 - Curriculum Resources Early Child Program

- Apply for Graduation

Total Semester Hours
30

The following courses require an annual background check: CDEC 1321, CDEC 1413, CDEC 1419, TECA 1311, TECA 1318, and TECA 1354

After School Provider

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
After School Provider

Program Code
CHIL.T007.UG

Program Type
Level 1 Certificate

CIP
19.0706

Learn More
Learn more about Child Development

Credential Map
Child Development.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- TECA 1303 - Families, School and Community
- TECA 1318 - Wellness of The Young Child
- TECA 1354 - Child Growth and Development
- CDEC 1358 - Creative Arts for Early Childhood

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CDEC 1419 - Child Guidance
- KINE 1164 - Intro to Physical Fitness & Wellness
- CDEC 1359 - Children With Special Needs
- CDEC 2341 - The School Age Child

- Apply for Graduation

Total Semester Hours
26

The following courses require an annual background check: TECA 1303, TECA 1318, and TECA 1354

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Computer-Aided Drafting and Design Technology: Manufacturing Technology, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Computer-Aided Drafting and Design Technology: Manufacturing Technology, AAS

Program Code
CMFT.D001.UG

Program Type
Associate of Applied Science

CIP
15.0613

Learn More
Learn more about Computer-Aided Drafting & Design

Credential Map
Computer-Aided Drafting and Design Technology-Manufacturing Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 1305 - Introduction to Technical Drawing
- MCHN 1338 - Basic Machine Shop I
- ENGL 1301 - Composition I
- DFTG 1409 - Basic Computer-Aided Drafting

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 1445 - Parametric Modeling and Design
- DFTG 2440 - Solid Modeling/Design
- DFTG 2402 - Machine Drafting
- MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1332 - Contemporary Math (Quantitative Reason)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 2423 - Pipe Drafting
  OR MCHN 2434 - Operation of CNC Machining Centers
- DFTG 1458 - Electrical/Electronics Drafting
  OR MCHN 2431 - Operation of CNC Turning Centers
- DFTG 2419 - Intermediate Computer-Aided Drafting
  OR MCHN 2435 - Advanced CNC Machining

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DFTG 2438 - Final Project - Advanced Drafting
- MCHN 2303 - Fundamentals of CNC Machine Controls
- DFTG 2458 - Advanced Machine Design
  OR MCHN 2444 - Computer Numerical Control Programming

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Manufacturing Technology

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Manufacturing Technology

Program Code
CMFT.T001.UG

Program Type
Level 2 Certificate

CIP
15.0613

Learn More
Learn more about Computer-Aided Drafting & Design

Credential Map
Computer-Aided Drafting and Design Technology-Manufacturing Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 1305 - Introduction to Technical Drawing
- MCHN 1338 - Basic Machine Shop I
- DFTG 1409 - Basic Computer-Aided Drafting
- DFTG 2440 - Solid Modeling/Design

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 1445 - Parametric Modeling and Design
- DFTG 2402 - Machine Drafting
- ENGL 1301 - Composition I
- DFTG 2423 - Pipe Drafting
  OR MCHN 2434 - Operation of CNC Machining Centers
- DFTG 1458 - Electrical/Electronics Drafting
  OR MCHN 2431 - Operation of CNC Turning Centers

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MCHN 2303 - Fundamentals of CNC Machine Controls
- DFTG 2419 - Intermediate Computer-Aided Drafting
  OR MCHN 2435 - Advanced CNC Machining
- DFTG 2458 - Advanced Machine Design
  OR MCHN 2444 - Computer Numerical Control Programming

- Apply for Graduation

Total Semester Hours
44

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

CNC Machinist Technology

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
CNC Machinist Technology

Program Code
CMFT.T002.UG

Program Type
Level 1 Certificate

CIP
48.0510

Learn More
Learn more about Computer-Aided Drafting & Design

Credential Map
Computer-Aided Drafting and Design Technology-Manufacturing Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 1305 - Introduction to Technical Drawing
- MCHN 1338 - Basic Machine Shop I
- DFTG 1409 - Basic Computer-Aided Drafting
- DFTG 2440 - Solid Modeling/Design

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MCHN 2303 - Fundamentals of CNC Machine Controls
- MCHN 2434 - Operation of CNC Machining Centers
- MCHN 2431 - Operation of CNC Turning Centers

- Apply for Graduation

Total Semester Hours
25

Learning Outcomes

Basic CAD Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Basic CAD Technician

Program Code
CMFT.T003.UG

Program Type
Occupational Skills Award

CIP
15.1302

Learn More
Learn more about Computer-Aided Drafting & Design

Credential Map
Computer-Aided Drafting and Design Technology-Manufacturing Technology.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DFTG 1305 - Introduction to Technical Drawing
- MCHN 1338 - Basic Machine Shop I
- DFTG 1409 - Basic Computer-Aided Drafting
- DFTG 2440 - Solid Modeling/Design

- Apply for Graduation

Total Semester Hours
14

Construction Management Technology, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Construction Management Technology, AAS

Program Code
CONS.D003.UG

Program Type
Associate of Applied Science

CIP
15.1001

Learn More
Learn more about Construction Management Technology

Credential Map
Construction Management Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CNBT 1110 - Basic Construction Safety
- CNBT 1300 - Residential/Light Comm Cons Drawings
- CNBT 1311 - Construction Methods and Materials I
- CNBT 1302 - Mech/Plumb/Elect System Construction I
- MATH 1314 - College Algebra

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CNBT 1346 - Construction Estimating I
- CNBT 1342 - Building Codes and Inspections
- CNBT 1344 - Construction Materials Testing
- ENGL 1301 - Composition I
- ARCH 1315 - Architectural Computer Graphics

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:

- GEOL 1305 - Environmental Science (Lecture Only)

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- SRVY 1301 - Introduction to Surveying
- CNBT 2342 - Construction Management I
- BMGT 1327 - Principles of Management
- COSC 1301 - Introduction to Computing

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CNBT 2266 - Practicum-Construction Engineering Tech
- CNBT 2335 - Computer-Aided Construction Scheduling
- CNBT 2337 - Construction Estimating II
- ECON 2301 - Principles of Macroeconomics
  OR ECON 2302 - Principles of Microeconomics

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Construction Inspection Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Construction Inspection Technician

Program Code
CONS.T004.UG

Program Type
Level 1 Certificate

CIP
15.1001

Learn More
Learn more about Construction Management Technology

Credential Map
Construction Management Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CNBT 1110 - Basic Construction Safety
- CNBT 1300 - Residential/Light Comm Cons Drawings
- CNBT 1311 - Construction Methods and Materials I
- CNBT 1302 - Mech/Plumb/Elect System Construction I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CNBT 1342 - Building Codes and Inspections
- CNBT 1346 - Construction Estimating I
- CNBT 1344 - Construction Materials Testing

- Apply for Graduation

Total Semester Hours
19

Learning Outcomes

Construction Management Technology

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Construction Management Technology

Program Code
CONS.T008.UG

Program Type
Level 1 Certificate

CIP
15.1001

Learn More
Learn more about Construction Management Technology

Credential Map
Construction Management Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CNBT 1110 - Basic Construction Safety
- CNBT 1300 - Residential/Light Comm Cons Drawings
- CNBT 1311 - Construction Methods and Materials I
- CNBT 1302 - Mech/Plumb/Elect System Construction I
- CNBT 2342 - Construction Management I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CNBT 1342 - Building Codes and Inspections
- CNBT 1346 - Construction Estimating I
- ARCH 1315 - Architectural Computer Graphics
- CNBT 1344 - Construction Materials Testing
- CNBT 2335 - Computer-Aided Construction Scheduling

- Apply for Graduation

Total Semester Hours
28

Learning Outcomes

Criminal Justice, AAS

General

TCC Pathway
Human & Public Service

Location(s)
Northwest

Program Name
Criminal Justice, AAS

Program Code
CRIM.D001.UG

Program Type
Associate of Applied Science

CIP
43.0104

Learn More
Learn more about Criminal Justice

Credential Map
Criminal Justice.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CRIJ 1301 - Introduction to Criminal Justice
- CRIJ 1310 - Fundamentals of Criminal Law
- ENGL 1301 - Composition I
- SOCI 1301 - Introduction to Sociology

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CRIJ 1307 - Crime in America
- CRIJ 2328 - Police Systems and Practices
- CRIJ 2313 - Correctional Systems and Practices

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CRIJ 2323 - Legal Aspects of Law Enforcement
- GOVT 2305 - Federal Govrnment (Federal Const & Top)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Component Area Option (3 Semester Credit Hours)
- Criminal Justice Elective (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CRIJ 2314 - Criminal Investigation
- CRIJ 1306 - Court Systems and Practices
- CJSA 2388 - Internship-Criminal Justice Studies
  OR CJSA 2334 - Contemporary Issues in Criminal Justice

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Criminal Justice Elective (3 Semester Credit Hours)
- Criminal Justice Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Basic Peace Officer Certification

General

TCC Pathway
Human & Public Service

Location(s)
Northwest

Program Name
Basic Peace Officer Certification

Program Code
CRIM.T003.UG

Program Type
Level 1 Certificate

CIP
43.0107

Learn More
Learn more about Law Enforcement

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- CJLE 1506 - Basic Peace Officer I
- CJLE 1512 - Basic Peace Officer II
- CJLE 1518 - Basic Peace Officer III
- CJLE 1524 - Basic Peace Officer IV
- CJLE 1429 - Basic Peace Officer V

- Apply for Graduation

Total Semester Hours
24

Selective Admission Criteria:

Consent of the Academy Coordinator is required for enrollment. Once admitted to the program, students must complete and earn a minimum grade of C in each course. The endorsement of eligibility for the State Peace Officer Licensing Exam will only be issued to a student who has completed each course with a minimum grade of "C" during that specific academy.

Enrollment is based on space availability for those who meet admission criteria.

Admission Criteria:

1. *Students must have a personal interview with an academy coordinator.*
2. *Students must complete the police academy application (available at the Criminal Justice Training Center).*
3. *Students must meet minimum licensing requirements as established by the Texas Commission on Law Enforcement (TCOLE).*

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Security Management

General

TCC Pathway
Human & Public Service

Location(s)
Northwest

Program Name
Security Management

Program Code
CRIM.T006.UG

Program Type
Occupational Skills Award

CIP
43.0109

Credential Map
Criminal Justice.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- SLPS 1371 - Introduction to Security Management
- SLPS 2371 - Fundamentals of Physical Security
- SLPS 1372 - Security and Loss Prevention

- Apply for Graduation

Total Semester Hours
9

Learning Outcomes

Criminal Justice and Policing

General

TCC Pathway
Human & Public Service

Location(s)
Northwest, Trinity River

Program Name
Criminal Justice and Policing

Program Code
CRIM.T007.UG

Program Type
Level 1 Certificate

CIP
43.0104

Learn More
Learn more about Criminal Justice

Credential Map
Criminal Justice.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CRIJ 1301 - Introduction to Criminal Justice
- SOCI 1301 - Introduction to Sociology
- ENGL 1301 - Composition I
- CRIJ 1310 - Fundamentals of Criminal Law

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ENGL 2311 - Technical and Business Writing
- CRIJ 2313 - Correctional Systems and Practices
- CRIJ 2328 - Police Systems and Practices
- CRIJ 1306 - Court Systems and Practices

- Apply for Graduation

Total Semester Hours
24

Learning Outcomes

Culinary Arts, AAS

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Culinary Arts, AAS

Program Code
CULI.D003.UG

Program Type
Associate of Applied Science

CIP
12.0503

Learn More
Learn more about Culinary Arts

Credential Map
Culinary Arts.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CHEF 1301 - Basic Food Preparation
- CHEF 1305 - Sanitation and Safety
- PSTR 1301 - Fundamentals of Baking
- RSTO 1304 - Dining Room Service
- RSTO 1325 - Purchasing for Hospitality Operations

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HAMG 2301 - Principles of Food & Beverage Operations
- CHEF 2301 - Intermediate Food Preparation
- ENGL 1301 - Composition I
- HAMG 1324 - Hospitality Human Resources Management
  OR HAMG 1340 - Hospitality Legal Issues

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Culinary Arts Elective (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from each option below

Complete ALL of the following Course Sets:

- Culinary Arts Elective (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CHEF 1310 - Garde Manger
- CHEF 1302 - Principles of Healthy Cuisine
- CHEF 1341 - American Regional Cuisine
  OR CHEF 1345 - International Cuisine

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CHEF 1400 - Professional Cooking and Meal Service
- CHEF 1264 - Practicum Culinary Arts/Chef Training

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Social and Behavioral Science (3 Semester Credit Hours)
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

The program is accredited by the American Culinary Federation Education Foundation, 180 Center Place Way, St. Augustine, Florida 32095.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Catering/Private Chef

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Catering/Private Chef

Program Code
CULI.T006.UG

Program Type
Level 2 Certificate

CIP
12.0503

Learn More
Learn more about Culinary Arts

Credential Map
Culinary Arts.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CHEF 1305 - Sanitation and Safety
- CHEF 1301 - Basic Food Preparation
- PSTR 1301 - Fundamentals of Baking
- RSTO 1325 - Purchasing for Hospitality Operations
- RSTO 1304 - Dining Room Service

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSG 2309 - Small Business Manage/Entrepreneurship
- CHEF 2301 - Intermediate Food Preparation
- ACNT 1303 - Introduction to Accounting I
- BUSG 1315 - Small Business Operations
- CHEF 1302 - Principles of Healthy Cuisine

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- ENGL 1301 - Composition I

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CHEF 1341 - American Regional Cuisine
  OR CHEF 1345 - International Cuisine
- CHEF 1400 - Professional Cooking and Meal Service
- CHEF 1264 - Practicum Culinary Arts/Chef Training
- TRVM 1201 - Customer Sales and Service

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Culinary Arts Elective (3 Semester Credit Hours)

Total Semester Hours
47

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Culinary Arts I

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Culinary Arts I

Program Code
CULI.T007.UG

Program Type
Level 1 Certificate

CIP
12.0503

Learn More
Learn more about Culinary Arts

Credential Map
Culinary Arts.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CHEF 1305 - Sanitation and Safety
- PSTR 1301 - Fundamentals of Baking
- RSTO 1304 - Dining Room Service
- RSTO 1325 - Purchasing for Hospitality Operations
- HAMG 2301 - Principles of Food & Beverage Operations
- CHEF 1301 - Basic Food Preparation

- Apply for Graduation

Total Semester Hours
18

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Baking and Pastry

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Baking and Pastry

Program Code
CULI.T009.UG

Program Type
Level 1 Certificate

CIP
12.0503

Learn More
Learn more about Culinary Arts

Credential Map
Culinary Arts.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CHEF 1305 - Sanitation and Safety
- PSTR 1301 - Fundamentals of Baking
- PSTR 1206 - Cake Decorating I
- PSTR 2207 - Cake Decorating II
- HAMG 2301 - Principles of Food & Beverage Operations
- CHEF 1301 - Basic Food Preparation

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- PSTR 2331 - Advanced Pastry Shop
- PSTR 1305 - Breads and Rolls
- PSTR 1310 - Pies, Tarts, Teacakes and Cookies
- PSTR 1442 - Quantity Bakeshop Production

- Apply for Graduation

Total Semester Hours
29

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Diesel Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Diesel Technician

Program Code
DEMR.T001.UG

Program Type
Level 1 Certificate

CIP
47.0605

Learn More
Learn more about Diesel Technician

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DEMR 1301 - Shop Safety and Procedures
- DEMR 1305 - Basic Electrical Systems
- DEMR 1317 - Basic Brake Systems
- DEMR 1306 - Diesel Engine I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DEMR 1230 - Steering and Suspension I
- DEMR 1316 - Basic Hydraulics
- DEMR 1321 - Power Train I
- DEMR 1323 - HVAC Troubleshooting and Repair

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DEMR 1229 - Preventative Maintenance
- DEMR 1327 - Tractor Trailer Service and Repair
- DEMR 1280 - Coop Ed - Diesel Mech Technology/Techn

- Apply for Graduation

Total Semester Hours
30

Learning Outcomes

Dental Hygiene, AAS

General

TCC Pathway
Health Science

Location(s)
Northeast

Program Name
Dental Hygiene, AAS

Program Code
DENH.D001.UG

Program Type
Associate of Applied Science

CIP
51.0602

Learn More
Learn more about Dental Hygiene

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Summer Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)

Fall Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CHEM 1406 - Intr Chemistry I-Allied Hlth (Lec/Lab)
- DHYG 1207 - General and Dental Nutrition
- DHYG 1227 - Preventive Dental Hygiene Care
- DHYG 1431 - Preclinical Dental Hygiene
- DHYG 1301 - Orofacial Anatomy, Histology, Embryology

Spring Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- DHYG 1260 - Clinical-Dental Hygiene/Hygienist
- DHYG 1304 - Dental Radiology
- DHYG 1219 - Dental Materials
- DHYG 2201 - Dental Hygiene Care I
- BIOL 2420 - Microbiology Non-Science Maj (Lec/Lab)

Second Year
Type
Completion Requirement

Summer Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- DHYG 2331 - Dental Hygiene Care II
- DHYG 1311 - Periodontology

Fall Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- DHYG 1235 - Pharmacology for The Dental Hygienist
- DHYG 1239 - General and Oral Pathology
- DHYG 1215 - Community Dentistry
- DHYG 2360 - Clinical-Dental Hygienist

Spring Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- DHYG 2253 - Dental Hygiene Practice
- DHYG 2361 - Clinical-Dental Hygienist
- PSYC 2315 - Psychology of Adjustment
  OR PSYC 2301 - General Psychology
- SOCI 1301 - Introduction to Sociology
  OR SOCI 1306 - Social Problems
  OR SOCI 2301 - Marriage and the Family
  OR SOCI 2319 - Minority Studies
  OR SOCI 2336 - Criminology

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Total Semester Hours Apply for Graduation
68

Selective Admission Criteria:

A selection committee reviews applications and selects those applicants who best meet the following criteria (listed in random order):

The applicant must:

1. *Complete the application to the College (TCC) and meet the admission requirements for the institution.*
2. *Submit to the secretary of the selection committee for Health Sciences:*
   - *Completed application for admission to the Dental Hygiene Program;*
   - *Provide official high school or college transcripts (High school, if completed fewer than 12 semester hours of college, or College, if completed, or will complete by the deadline date, 12 or more semester hours of college. Official transcripts are required from each college you have attended, including TCC.*
3. *Schedule a time to take the Health Education System, Inc. (HESI) Admissions Exam; and*
4. *Complete the TOEFL iBT® test if English is not your first language.*

Additional Application Information:

- *Applicants will only be able to apply three times to the dental hygiene program.*
- *Grade point average (GPA) of all high school or undergraduate college classes, or GED scores if high school/college are not applicable.*
- *Bonus points are awarded for college-level general education and science courses required for the program, for which a grade of "C" or higher was earned.*
  ***NOTE:** Science courses must have been completed within five years of the semester containing the program deadline date. Only the highest grade from the first two (2) attempts on any science course will be considered for admission. The exception to this rule will be a science course that is required to be taken more than twice because it is older than five (5) years. Any course withdrawals will be considered one of the two attempts.*
- *All prerequisite science courses must be completed within five (5) years of the submission of the application to the Dental Hygiene Program. Any sciences older than five (5) years will need to be re-taken.*
- *Bonus points proportionate to the number of semester hours from a regionally accredited college or university for which a grade of "C" or higher was made up to a maximum of 120 semester hours.*
- *Bonus point for a bachelor's degree from a regionally accredited college or university.*
- *Bonus points for observation experience in a dental care setting or for employment experience as a dental assistant.*

Students who are selected for admission must undergo screening for substances of abuse and a criminal background check. All offers for admission to the Dental Hygiene Program are provisional until satisfactory results are received for these two evaluations.

International students must contact International Student Admissions and Compliance at 817-515-1570 and also the EMS & Dental Hygiene Office at 817-515-6435.

Only the criteria listed are evaluated and considered for the purpose of selection and admission to this program. No specific minimum grade point average or test score, or a set minimum number of courses, must be completed for admission. Selection is based on how each applicant compares with others in the applicant pool. In general, the higher the grades, the more competitive the applicant will be for the positions available. Once admitted to the program, students must complete and earn a minimum grade of 'C' in each specialized course.

Most/all of the specialized courses are taught only during the daytime.

After successful completion of the above curriculum, the student is eligible to take the necessary examinations to become a registered dental hygienist through the Texas State Board of Dental Examiners, Central Regional Dental Testing Services, or Western Regional Examining Board, and the National Exam for Dental Hygienists through the American Dental Association.

The program is accredited by the American Dental Association Commission on Dental Accreditation (CODA), 211 E. Chicago Avenue, Chicago, Illinois 60611-2678.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Nutrition and Dietetics, AAS

General

TCC Pathway
Health Science

Location(s)
Southeast

Program Name
Nutrition and Dietetics, AAS

Program Code
DIET.D003.UG

Program Type
Associate of Applied Science

CIP
51.3103

Learn More
Learn more about Nutrition and Dietetics

Credential Map
Nutrition and Dietetics.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- FDNS 1103 - Introduction to Dietetics
- HECO 1322 - Nutrition and Diet Therapy
- FDNS 1370 - Principles of Food Preparation
- DITA 1300 - Dietary Manager I
- DITA 1301 - Dietary Manager II

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- FDNS 1309 - Nutrition in the Community
- FDNS 1346 - Medical Nutrition Therapy II
- IFWA 2446 - Quantity Procedures
- FDNS 1168 - Practicum - Dietary Management
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- FDNS 2168 - Practicum-Community Nutrition/Wellness

AND

Required Courses

Fulfill ALL of the following requirements:

Complete one from each option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:

- FDNS 1447 - Medical Nutrition Therapy III
- FDNS 1341 - Nutrition in the Life Cycle
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- FDNS 2168 - Practicum-Community Nutrition/Wellness

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- FDNS 2300 - Food Management Systems
- FDNS 2170 - Seminar for Dietetics
- FDNS 2169 - Practicum - Clinical Dietetics

AND

Required Courses

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Petition Criteria:

- *The following courses DITA 1301, FDNS 1309, FDNS 1346, and FDNS 1447 must be completed within the last 3 years with a "B" or better to petition for Practicum Courses FDNS 1168, FDNS 2168, and FDNS 2169. See course prerequisites for specific requirements.*

Students may petition for a practicum during the semester in which they meet the requirements. However, students will not be enrolled in the practicum until the course grade is published on the student's transcript.

Practicum Petition Approval Criteria:

Program Coordinators review the petitions and approve students based on prerequisite grade requirements and the submission of required background checks, drug screens, health documents, and other required forms. There is no minimum GPA requirement.

Program Completion Requirements:

- *DITA 1301, FDNS 1309, FDNS 1346, and FDNS 1447 with a "B" or better, and all other DITA, FDNS, HECO, and IFWA courses with a "C" or better to graduate from the Nutrition and Dietetics Program.*
- *FDNS 1346 and FDNS 1447 must be completed within five years from graduation.*
- *All students must complete a minimum of 450 supervised practice hours (over three practicum courses) and receive a satisfactory practicum evaluation to complete the DT program.*
- *Students not enrolled in dietetics courses for two consecutive semesters will be removed from the program.*
- *Students who meet all program completion requirements will be eligible to sit for the national NDTR (Nutrition Dietetic Technician, Registered) credentialing examination.*

Additional Requirements:

Students petitioning to a practicum must undergo and receive a clear criminal background check and negative substance abuse screening. In addition, students are required to meet physical requirements and Nutrition and Dietetics Program immunization requirements and provide proof of CPR for healthcare provider, ServSafe Manager Certification, and a valid Texas driver's license prior to starting practicum rotation.

See the Nutrition and Dietetics Program TCC website for additional information.

The TCC Nutrition and Dietetics Program is accredited by the Accreditation Council for Education in Nutrition and Dietetics.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Nutrition Specialist I

General

TCC Pathway
Health Science

Location(s)
Southeast

Program Name
Nutrition Specialist I

Program Code
DIET.T006.UG

Program Type
Level 1 Certificate

CIP
51.3103

Learn More
Learn more about Nutrition Specialists

Credential Map
Nutrition and Dietetics.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- FDNS 1103 - Introduction to Dietetics
- HECO 1322 - Nutrition and Diet Therapy
- DITA 1300 - Dietary Manager I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- FDNS 1309 - Nutrition in the Community
  OR FDNS 1341 - Nutrition in the Life Cycle
- FDNS 1370 - Principles of Food Preparation
- FDNS 1346 - Medical Nutrition Therapy II

- Apply for Graduation

Total Semester Hours
16

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Food and Nutrition Coach

General

TCC Pathway
Health Science

Location(s)
Southeast

Program Name
Food and Nutrition Coach

Program Code
DIET.T007.UG

Program Type
Level 2 Certificate

CIP
51.3103

Learn More
Learn more about Food and Nutrition Coach

Credential Map
Nutrition and Dietetics.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- FDNS 1103 - Introduction to Dietetics
- HECO 1322 - Nutrition and Diet Therapy
- FDNS 1370 - Principles of Food Preparation
- DITA 1300 - Dietary Manager I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DITA 1301 - Dietary Manager II
- FDNS 1309 - Nutrition in the Community
- FDNS 1346 - Medical Nutrition Therapy II
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- FDNS 1341 - Nutrition in the Life Cycle

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Term IV

Complete ALL of the following Courses:

- PSYC 2301 - General Psychology
  OR SOCI 1301 - Introduction to Sociology
- FDNS 1371 - Child Nutrition and Programs
- IFWA 2446 - Quantity Procedures
- FDNS 2168 - Practicum-Community Nutrition/Wellness

- Apply for Graduation

Total Semester Hours
40

Practicum Approval Criteria:

Students petitioning to FDNS 2168 Practicum must earn a "B" or better in FDNS 1309 and undergo and receive a clear criminal background check and negative substance abuse screening. In addition, students are required to meet physical requirements and Dietetics Program immunization requirements, proof of CPR for healthcare provider and ServSafe Manager Certification, and a valid Texas driver's license prior to starting practicum rotation.

Certificate completers are NOT eligible to sit for the national NDTR Credentialing examination.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Healthy Meal Planning

General

TCC Pathway
Health Science

Location(s)
Southeast

Program Name
Healthy Meal Planning

Program Code
DIET.T008.UG

Program Type
Occupational Skills Award

CIP
51.3103

Learn More
Learn more about Healthy Meal Planning

Credential Map
Nutrition and Dietetics.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HECO 1322 - Nutrition and Diet Therapy
- FDNS 1103 - Introduction to Dietetics
- FDNS 1370 - Principles of Food Preparation
- FDNS 1341 - Nutrition in the Life Cycle
  OR FDNS 1371 - Child Nutrition and Programs

Total Semester Hours
10

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Dietary Manager

General

TCC Pathway
Health Science

Location(s)
Southeast

Program Name
Dietary Manager

Program Code
DIET.T009.UG

Program Type
Level 1 Certificate

CIP
51.3103

Learn More
Learn more about Dietary Manager

Credential Map
Nutrition and Dietetics.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- FDNS 1103 - Introduction to Dietetics
- HECO 1322 - Nutrition and Diet Therapy
- FDNS 1370 - Principles of Food Preparation
- DITA 1301 - Dietary Manager II

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- DITA 1300 - Dietary Manager I
- IFWA 2446 - Quantity Procedures

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- FDNS 1168 - Practicum - Dietary Management

- Apply for Graduation

Total Semester Hours
18

Practicum Approval Criteria:

Program Coordinators review the petitions and approve students based on pre-requisite grade requirements and submission of required background check, drug screen, health documents and other required forms. There is no minimum GPA requirement.

- *Students must complete DITA 1301 with a grade of "B" or better and all other courses with a "C" or better. Students must earn a grade of "B" or better in DITA 1301 Dietary Manager II to petition for FDNS 1168 Dietary Manager Practicum.*
- *Students petitioning for a practicum must undergo and receive a clear criminal background check and negative substance abuse screening. In addition, students are required to meet physical requirements and Dietetics Program immunization requirements, proof of CPR for healthcare provider and ServSafe Manager Certification, and valid Texas driver license prior to starting practicum rotation.*
- *Students not enrolled in dietetic courses for two consecutive semesters will be removed from the program.*
- *Students who completed the certificate are eligible to sit for the national CDM (Certified Dietary Manager) credentialing examination.*

TCC Dietary Manager Program is an approved program by the Association of Nutrition and Foodservice Professionals (ANFP).

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Diagnostic Medical Sonography, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Diagnostic Medical Sonography, AAS

Program Code
DMSO.D001.UG

Program Type
Associate of Applied Science

CIP
51.0910

Learn More
Learn more about Diagnostic Medical Sonography

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following must be completed prior to applying for admission into the Diagnostic Medical Sonography Program.

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- MATH 1314 - College Algebra
- ENGL 1301 - Composition I
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- PSYC 2301 - General Psychology
- PHYS 1401 - College Physics I (Lecture + Lab)
  OR PHYS 1415 - Physical Science I (Lecture + Lab)

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- DMSO 1110 - Introduction to Sonography
- DMSO 1441 - Abdominopelvic Sonography
- DMSO 1302 - Basic Ultrasound Physics
- DMSO 1266 - Pract-Diag Med Snog/Snog Ultrasnd Tech

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- DSVT 1103 - Introduction to Vascular Technology
- DMSO 2305 - Sonography of Obstetrics/Gynecology
- DMSO 2243 - Advanced Ultrasound Physics
- DMSO 1366 - Pract-Diag Med Snog/Snog Ultrasnd Tech

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- DMSO 2253 - Sonography of Superficial Structures
- DMSO 2242 - Advanced Obstetric Sonography
- DMSO 1267 - Pract-Diag Med Snog/Snog Ultrasnd Tech

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:
- DMSO 1355 - Sonographic Pathophysiology
- DSVT 1300 - Principles of Vascular Technology
- DMSO 1367 - Pract-Diag Med Snog/Snog Ultrasnd Tech

Term V

- Meet with your Career Advisor

Complete ALL of the following Courses:
- DSVT 2335 - Advanced Vascular Technology
- DMSO 2130 - Advanced Ultrasound and Review
- DSVT 1364 - Pract-Diag Med Son/Son Ultrsnd Tech

- Apply for Graduation

Total Semester Hours
65

Selective Admission Criteria:

All applicants to the Diagnostic Medical Sonography Program are required to attend an information session before the application deadline.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *Currently have a minimum GPA of 2.5*
- *Successfully complete the Ultrasound Student Assessment (USA) Exam through Pegasus Lectures. This exam can only be taken once per application period.*
  - *Instructions for this process can be found on the TCC website and https://pegasuslectures.com/usa_program.php.*
- *IELTS 6.5 minimum score or TOEFL iBT test 83 as a minimum score for ESL students*

For additional information, refer to the TCC website.

Prior to application, students with international college credits must contact International Student Admissions and Compliance at 817-515-1570 to verify those courses that will transfer to TCC.

Once admitted to the program, students must maintain a minimum grade of "C" (78%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check, both of which must report negative prior to and for the duration of the program. Additional drug screening and criminal background checks may be required within the program. Required immunizations must be completed prior to the beginning of classes.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Registered Dental Assistant

General

TCC Pathway
Health Science

Location(s)
Northeast

Program Name
Registered Dental Assistant

Program Code
DNTA.T001.UG

Program Type
Level 1 Certificate

CIP
51.0601

Learn More
Learn more about Dental Assisting

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DNTA 1311 - Dental Science
- DNTA 1202 - Comm and Behavior in The Dental Office
- DNTA 1245 - Preventive Dentistry
- DNTA 1315 - Chairside Assisting
- DNTA 1305 - Dental Radiology

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- DNTA 1353 - Dental Assisting Applications
- DNTA 1301 - Dental Materials
- DNTA 1251 - Dental Office Management
- DNTA 1103 - Registered Dental Assistant Exam Review
- DNTA 1360 - Clinical - Dental Assisting/Assistant

- Apply for Graduation

Total Semester Hours
25

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Electrician Helper

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Electrician Helper

Program Code
ELPT.T001.UG

Program Type
Level 1 Certificate

CIP
46.0301

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ELPT 1321 - Introduction to Electrical Safety/Tools
- ELPT 1311 - Basic Electrical Theory
- ELPT 1315 - Electrical Calculations I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ELPT 1371 - Introduction to Electrical Controls
- ELPT 1345 - Commercial Wiring
- ELPT 2380 - Coop Electrical/Power Trans Install Gen

- Apply for Graduation

Total Semester Hours
18

Emergency Medical Services, AAS

General

TCC Pathway
Health Science

Location(s)
Northeast

Program Name
Emergency Medical Services, AAS

Program Code
EMER.D002.UG

Program Type
Associate of Applied Science

CIP
51.0904

Learn More
Learn more about Emergency Medical Services

Credential Map
Emergency Medical Services.pdf

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

General Education Courses

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- ENGL 1301 - Composition I
- PSYC 2315 - Psychology of Adjustment
  OR PSYC 2301 - General Psychology
- HIST 1301 - United States History I
  OR HIST 1302 - United States History II
  OR HIST 2301 - Texas History
  OR HIST 2311 - Western Civilization I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)
- Life and Physical Sciences (4 Semester Credit Hours)

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EMSP 1356 - Patient Assessment and Airway Management
- EMSP 1438 - Introduction to Advanced Practice
- EMSP 2160 - Clinical - EMT Paramedic

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EMSP 1355 - Trauma Management
- EMSP 2161 - Clinical - EMT Paramedic
- EMSP 2444 - Cardiology

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EMSP 2534 - Medical Emergencies

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EMSP 2162 - Clinical - EMT Paramedic
- EMSP 2305 - EMS Operations
- EMSP 2430 - Special Populations

Term V

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EMSP 2243 - Assessment Based Management
- EMSP 2267 - Practicum - EMT Paramedic

- Apply for Graduation

Total Semester Hours
60

Selective Admission Criteria:

A selection committee reviews the applications and selects those applicants who best meet the following criteria (listed in random order):

- *Grade point average (GPA) taken from high school or college transcripts, as applicable.*
- *GED scores if high school/college is not applicable.*
- *Bonus points for college general education courses required for the program, for which a grade of "C" or better was earned.*
- *Bonus points for college science courses required for the program and the GPA of those courses.*
- *Priority preference will be given to applicants who have completed Anatomy and Physiology I and II.*

Applicants must hold a current Texas EMT certificate. May be earned by taking EMSP 1160 and EMSP 1501.

Only the criteria listed are evaluated and considered for the purpose of selection and admission to the Paramedic Program. No specific minimum grade point average or minimum number of courses must be completed for admission. Selection is based on how each applicant compares with others in the applicant pool. In general, the higher the grades, the more competitive the applicant will be for the positions available.

Students must undergo screening for substance abuse and a criminal background check in order to remain enrolled in the program. Details are provided at an orientation meeting prior to the beginning of classes.

Students must complete and earn a grade of "C" or better in each specialized course.

The Tarrant County College Emergency Medical Services Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756 Phone: 727-210-2350 www.caahep.org

To contact CoAEMSP: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088 Phone: 214-703-8445 FAX: 214-703-8992 www.coaemsp.org

After successful completion of this program, the student will be eligible to take the examination for certification as a Paramedic by the National Registry of EMTs and apply for certification by the Texas Department of State Health Services.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Paramedic Program

General

TCC Pathway
Health Science

Location(s)
Northeast

Program Name
Paramedic Program

Program Code
EMER.T002.UG

Program Type
Level 1 Certificate

CIP
51.0904

Learn More
Learn more about Paramedic Program

Credential Map
Emergency Medical Services.pdf

Program Requirements

Simple Requisites

Subplan

Admission Requirement
Type
Prerequisite

Additional Comments:
- **Current Texas Department of State Health Services Emergency Medical Technician Certification**

First Year
Type
Completion Requirement

Term I
- Meet with your Career Advisor

Complete ALL of the following Courses:
- EMSP 1356 - Patient Assessment and Airway Management
- EMSP 1438 - Introduction to Advanced Practice
- EMSP 2160 - Clinical - EMT Paramedic

Term II
- Meet with your Career Advisor

Complete ALL of the following Courses:
- EMSP 1355 - Trauma Management
- EMSP 2161 - Clinical - EMT Paramedic
- EMSP 2444 - Cardiology

Term III
- Meet with your Career Advisor

Complete ALL of the following Courses:
- EMSP 2534 - Medical Emergencies

Second Year
Type
Completion Requirement

Term IV
- Meet with your Career Advisor

Complete ALL of the following Courses:
- EMSP 2162 - Clinical - EMT Paramedic
- EMSP 2305 - EMS Operations
- EMSP 2430 - Special Populations

Term V
- Meet with your Career Advisor

Complete ALL of the following Courses:
- EMSP 2243 - Assessment Based Management
- EMSP 2267 - Practicum - EMT Paramedic

- Apply for Graduation

Total Semester Hours
33

Selective Admission Criteria:

A selection committee reviews the applications and selects those applicants who best meet the following criteria (listed in random order):

- *Grade point average (GPA) taken from high school or college transcripts, as applicable.*
- *GED scores if high school/college is not applicable.*
- *Bonus points for college general education courses required for the program, for which a grade of "C" or better was earned.*
- *Bonus points for college science courses required for the program and the GPA of those courses.*
- *Priority preference will be given to applicants who have completed Anatomy and Physiology I and II.*

Applicants must hold a current Texas EMT certificate. May be earned by taking EMSP 1160 and EMSP 1501.

Only the criteria listed are evaluated and considered for the purpose of selection and admission to the Paramedic Program. No specific minimum grade point average or minimum number of courses must be completed for admission. Selection is based on how each applicant compares with others in the applicant pool. In general, the higher the grades, the more competitive the applicant will be for the positions available.

Students must undergo screening for substance abuse and a criminal background check in order to remain enrolled in the program. Details are provided at an orientation meeting prior to the beginning of classes.

Students must complete and earn a grade of "C" or better in each specialized course.

The Tarrant County College Emergency Medical Services Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs 1361 Park Street, Clearwater, FL 33756 Phone: 727-210-2350 www.caahep.org

To contact CoAEMSP: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088. Phone: 214-703-8445 Fax: 214-703-8992 www.coaemsp.org

After successful completion of this program, the student will be eligible to take the examination for certification as a Paramedic by the National Registry of EMT's, and apply for certification by the Texas Department of State Health Services.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Emergency Medical Technician

General

TCC Pathway
Health Science

Location(s)
Northeast

Program Name
Emergency Medical Technician

Program Code
EMER.T003.UG

Program Type
Level 1 Certificate

CIP
51.0904

Learn More
Learn more about Emergency Medical Technician

Credential Map
Emergency Medical Services.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- COSC 1301 - Introduction to Computing

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term II
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- EMSP 1501 - Emergency Medical Technician
- EMSP 1160 - Clinical-Emergency Medical Technology

- Apply for Graduation

Total Semester Hours
18

*The completion of **EMSP 1501** and **EMSP 1160** does not assure admission into the Emergency Medical Services AAS or Paramedic Program.*

Selective Admission Criteria:

Students must undergo screening for substance abuse and a criminal background check in order to remain enrolled in this program. Details are provided at an orientation meeting prior to the beginning of classes. Failure to attend published orientation meetings for EMSP 1501 and EMSP 1160 negates eligibility for the Emergency Medical Technician program.

Students must earn a grade of "C" or higher in both courses to receive an EMT certificate in this program. Satisfactory completion of EMSP 1501 and EMSP 1160 qualifies the student to take the examination for certification as an Emergency Medical Technician by the National Registry of EMTs and apply for certification by the Texas Department of State Health Services.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Electronics Technology: Advanced Energy Technician, AAS

General

TCC Pathway
STEM

Location(s)
South

Program Name
Electronics Technology: Advanced Energy Technician, AAS

Program Code
ENGY.D001.UG

Program Type
Associate of Applied Science

CIP
15.1701

Learn More
Learn more about Electronics Technology

Credential Map
Electronics Technology-Advanced Energy Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 1409 - DC-AC Circuits
- CETT 1449 - Digital Systems
- RBTC 1401 - Programmable Logic Controllers

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 1441 - Solid State Circuits
- CETT 1445 - Microprocessor
- RBTC 1351 - Robotic Mechanisms
- ENGL 1301 - Composition I

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 2435 - Advanced Microprocessors
- ELMT 1402 - Solar Photovoltaic Systems
- PTRT 1313 - Industrial Safety

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair
- CSIR 1459 - Digital Data Communication
- WIND 2459 - Wind Power Delivery System

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Renewable Energy Technology

General

TCC Pathway
STEM

Location(s)
South

Program Name
Renewable Energy Technology

Program Code
ENGY.T001.UG

Program Type
Level 1 Certificate

CIP
15.1701

Learn More
Learn more about Electronics Technology

Credential Map
Electronics Technology-Advanced Energy Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 1409 - DC-AC Circuits
- CETT 1449 - Digital Systems
- ELMT 1402 - Solar Photovoltaic Systems

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PTRT 1313 - Industrial Safety
- WIND 2459 - Wind Power Delivery System
- RBTC 1401 - Programmable Logic Controllers
- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair

- Apply for Graduation

Total Semester Hours
29

Learning Outcomes

Occupational Safety and Environmental Technology, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Occupational Safety and Environmental Technology, AAS

Program Code
ENVI.D003.UG

Program Type
Associate of Applied Science

CIP
15.0701

Learn More
Learn more about Occupational Safety & Environmental Technology

Credential Map
Occupational Safety and Environmental Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- EPCT 1407 - Intro to Environmental Safety/Health
- EPCT 1341 - Principles of Industrial Hygiene
- MATH 1314 - College Algebra
  OR MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1342 - Elementary Statistical Methods

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 2311 - Technical and Business Writing
- KINE 1164 - Intro to Physical Fitness & Wellness
- EPCT 1401 - HAZWOPER Training and Related Topics
- CHEM 1405 - Introductory Chemistry I (Lecture/Lab)
  OR CHEM 1406 - Intr Chemistry I-Allied Hlth (Lec/Lab)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- EPCT 1311 - Introduction to Environmental Science
- EPCT 1440 - Industrial Chemical Processes
- OSHT 1313 - Accident Prevention/Inspection/Investig
- EPCT 1313 - Contingency Planning

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- EPCT 1344 - Environmental Sampling and Analysis
- OSHT 2401 - OSHA Regulations - General Industry
- OSHT 2388 - Internship Occupational Safety & Health
  OR OSHT 2309 - Safety Program Management

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Occupational Safety & Environmental Technology Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Environmental Health and Safety Technician

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Environmental Health and Safety Technician

Program Code
ENVI.T007.UG

Program Type
Level 1 Certificate

CIP
15.0507

Learn More
Learn more about Occupational Safety & Environmental Technology

Credential Map
Occupational Safety and Environmental Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EPCT 1407 - Intro to Environmental Safety/Health
- EPCT 1341 - Principles of Industrial Hygiene
- OSHT 1305 - OSHA Regulations-Construction

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EPCT 1401 - HAZWOPER Training and Related Topics
- EPCT 1344 - Environmental Sampling and Analysis
- OSHT 2401 - OSHA Regulations - General Industry
- OSHT 2388 - Internship Occupational Safety & Health
  OR OSHT 2309 - Safety Program Management

- Apply for Graduation

Total Semester Hours
24

Water Resources Technician

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Water Resources Technician

Program Code
ENVI.T008.UG

Program Type
Level 1 Certificate

CIP
15.0506

Learn More
Learn more about Occupational Safety & Environmental Technology

Credential Map
Occupational Safety and Environmental Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EPCT 1341 - Principles of Industrial Hygiene
- EPCT 1407 - Intro to Environmental Safety/Health
- EPCT 1313 - Contingency Planning

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- EPCT 1344 - Environmental Sampling and Analysis
- EPCT 1401 - HAZWOPER Training and Related Topics
- EPCT 1327 - Basic Water Works Operations
  OR EPCT 1328 - Basic Wastewater Operations

- Apply for Graduation

Total Semester Hours
20

Electronics Technology: Robotics and Automation, AAS

General

TCC Pathway
STEM

Location(s)
South

Program Name
Electronics Technology: Robotics and Automation, AAS

Program Code
EROB.D001.UG

Program Type
Associate of Applied Science

CIP
15.0407

Learn More
Learn more about Electronics Technology

Credential Map
Electronics Technology-Robotics and Automation.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CETT 1409 - DC-AC Circuits
- CETT 1449 - Digital Systems
- RBTC 1401 - Programmable Logic Controllers

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CETT 1441 - Solid State Circuits
- CETT 1445 - Microprocessor
- RBTC 1351 - Robotic Mechanisms

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CETT 2435 - Advanced Microprocessors
- ENGL 1301 - Composition I
- RBTC 1447 - Electro-Mechanical Devices
- HYDR 1345 - Hydraulics and Pneumatics

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair
- ELPT 2455 - Programmable Logic Controllers II
- RBTC 2445 - Robot Application, Set-up and Testing

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Mechatronics Technology

General

TCC Pathway
STEM

Location(s)
South

Program Name
Mechatronics Technology

Program Code
EROB.T001.UG

Program Type
Level 1 Certificate

CIP
15.0407

Learn More
Learn more about Electronics Technology

Credential Map
Electronics Technology-Robotics and Automation.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 1409 - DC-AC Circuits
- CETT 1449 - Digital Systems
- RBTC 1401 - Programmable Logic Controllers

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RBTC 1351 - Robotic Mechanisms
- CETT 1441 - Solid State Circuits
- CETT 1445 - Microprocessor
- RBTC 2445 - Robot Application, Set-up and Testing

- Apply for Graduation

Total Semester Hours
30

Learning Outcomes

Electronics Technology

General

TCC Pathway
STEM

Location(s)
South

Program Name
Electronics Technology

Program Code
ETCM.T001.UG

Program Type
Level 1 Certificate

CIP
15.0305

Learn More
Learn more about Electronics Technology

Credential Map
Electronics Technology-Robotics and Automation.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 1409 - DC-AC Circuits
- CETT 1449 - Digital Systems
- RBTC 1401 - Programmable Logic Controllers

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 1441 - Solid State Circuits
- CETT 1445 - Microprocessor

- Apply for Graduation

Total Semester Hours
23

Learning Outcomes

Fire Protection Technology, AAS

General

TCC Pathway
Human & Public Service

Location(s)
Northwest

Program Name
Fire Protection Technology, AAS

Program Code
FIRP.D001.UG

Program Type
Associate of Applied Science

CIP
43.0201

Learn More
Learn more about Fire Protection Technology

Credential Map
Fire Protection Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- FIRT 1301 - Fundamentals of Fire Protection
- ENGL 1301 - Composition I
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)
- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- PSYC/SOCI Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- FIRT 1338 - Fire Protection Systems
- FIRT 1307 - Fire Prevention Codes and Inspections
- FIRT 1329 - Building Codes and Construction
- CHEM 1406 - Intr Chemistry I-Allied Hlth (Lec/Lab)
- KINE 1164 - Intro to Physical Fitness & Wellness

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- FIRT 1433 - Fire Chemistry I
- FIRT 1311 - Fire Service Hydraulics
- FIRT 1309 - Fire Administration I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Fire Protection Technology Elective (3 Semester Credit Hours)
- Fire Protection Technology Elective (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- FIRT 1349 - Fire Administration II
- FIRT 1315 - Hazardous Materials I
- FIRT 2388 - Internship-Emergency Managment
  OR FIRT 2331 - Firefighting Strategies and Tactics II

AND

Complete one course from each the below

Complete ALL of the following Course Sets:
- Fire Protection Technology Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Basic Firefighter Certification

General

TCC Pathway
Human & Public Service

Location(s)
Northwest

Program Name
Basic Firefighter Certification

Program Code
FIRP.T003.UG

Program Type
Level 1 Certificate

CIP
43.0203

Learn More
Learn more about Firefighter Certification

Credential Map
Fire Protection Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- FIRS 1301 - Firefighter Certification I
- FIRT 1338 - Fire Protection Systems
- FIRS 1313 - Firefighter Certification III
- FIRS 1319 - Firefighter Certification IV
- FIRS 1323 - Firefighter Certification V
- FIRS 1329 - Firefighter Certification VI

- Apply for Graduation

Total Semester Hours
18

The courses listed above are taught in an academy format (daytime - Monday through Friday from 8 a.m. to 5 p.m. and nighttime - Monday and Thursday from 6 p.m. to 10 p.m., and Saturday 8 a.m. to 5 p.m.) and have specialized admission requirements. Consent of the academy coordinator is required for enrollment. Once admitted to the program, students must complete and earn a minimum grade of "C" in each course. Final endorsement of eligibility for the State Firefighter Licensing Exam will only be issued to a student who has completed each course (with a minimum grade of "C") during that specific academy.

Enrollment is based on space availability for those who meet admission criteria.

Selective Admission Criteria:

1. *Students must contact the Fire Academy for academy dates and application deadlines.*
2. *Prior to enrolling, students must provide evidence of EMT Certification.*
3. *Students must take the physical abilities test.*
4. *Students must complete the Fire Academy application (available at the Fire Academy).*
5. *Students must have a personal interview with the Academy Coordinator.*

** This requirement may be waived by the Division Dean.*

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Geographic Information Systems, AAS

General

TCC Pathway
STEM

Location(s)
Trinity River

Program Name
Geographic Information Systems, AAS

Program Code
GINS.D001.UG

Program Type
Associate of Applied Science

CIP
45.0702

Learn More
Learn more about Geographic Information Systems

Credential Map
Geographic Information Systems.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GISC 1402 - Understanding Geographic Inform Systems
- GISC 2411 - Geographic Information Syst (GIS) App
- COSC 1301 - Introduction to Computing
- MATH 1314 - College Algebra

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GISC 2402 - GIS Design with Raster Analysis
- GISC 2404 - Geog Inform Systems Design Vector Analy
- GISC 2420 - Intermediate Geographic Info Systems
- COSC 1436 - Programming Fundamentals I

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- MATH 1342 - Elementary Statistical Methods
- ENGL 1301 - Composition I

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GISC 2401 - Data Acquisition & Analysis in GIS
- ITSW 1407 - Introduction to Database
- GISC 2435 - Programming for GIS
- SPCH 1311 - Introduction to Speech Communication

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GISC 2264 - Practicum/Field Experience-Cartography

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Kinesiology Activity (1 Semester Credit Hour)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Basic Geographic Information Systems (GIS) Skills

General

TCC Pathway
STEM

Location(s)
Trinity River

Program Name
Basic Geographic Information Systems (GIS) Skills

Program Code
GINS.T004.UG

Program Type
Level 1 Certificate

CIP
45.0702

Learn More
Learn more about Geographic Information Systems

Credential Map
Geographic Information Systems.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- GISC 1402 - Understanding Geographic Inform Systems
- GISC 2402 - GIS Design with Raster Analysis
- GISC 2411 - Geographic Information Syst (GIS) App
  OR GISC 2401 - Data Acquisition & Analysis in GIS

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- GISC 2404 - Geog Inform Systems Design Vector Analy
- GISC 2420 - Intermediate Geographic Info Systems

- Apply for Graduation

Total Semester Hours
20

Learning Outcomes

Geographic Information Systems Programmer

General

TCC Pathway
STEM

Location(s)
Trinity River

Program Name
Geographic Information Systems Programmer

Program Code
GINS.T005.UG

Program Type
Level 2 Certificate

CIP
45.0702

Learn More
Learn more about Geographic Information Systems

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GISC 1402 - Understanding Geographic Inform Systems
- GISC 2411 - Geographic Information Syst (GIS) App
- COSC 1301 - Introduction to Computing
- MATH 1314 - College Algebra

Term II
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GISC 2402 - GIS Design with Raster Analysis
- GISC 2404 - Geog Inform Systems Design Vector Analy
- GISC 2420 - Intermediate Geographic Info Systems
- COSC 1436 - Programming Fundamentals I

Term III
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- MATH 1342 - Elementary Statistical Methods

Second Year
Type
Completion Requirement

Term IV
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GISC 2401 - Data Acquisition & Analysis in GIS
- ITSW 1407 - Introduction to Database
- GISC 2435 - Programming for GIS

Total Semester Hours
45

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Graphic Communication, AAS

General

TCC Pathway
Arts & Humanities

Location(s)
Northeast

Program Name
Graphic Communication, AAS

Program Code
GRPH.D002.UG

Program Type
Associate of Applied Science

CIP
10.0301

Learn More
Learn more about Graphic Communication

Credential Map
Graphic Communication.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ARTC 1305 - Basic Graphic Design
- ARTS 1311 - Design I (2-dimensional)
- ARTS 1316 - Drawing I
- ARTC 1313 - Digital Publishing I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term II
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ARTC 1302 - Digital Imaging I
- ARTC 1353 - Computer Illustration
- ARTC 2313 - Digital Publishing II
- ARTC 2317 - Typographic Design

Term III
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- PSYC 2301 - General Psychology
  OR PSYC 2315 - Psychology of Adjustment

AND

Complete one course from the option below. Elective courses require department approval.

Complete ALL of the following Course Sets:
- Graphic Communication Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ARTC 2305 - Digital Imaging II
- IMED 1316 - Web Design I
- ARTS 2356 - Photography I (Fine Arts Emphasis)
- ARTC 2340 - Computer Illustration II

Term V
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- IMED 2315 - Web Design II
- ARTV 1303 - Basic Animation
- ARTC 2335 - Portfolio Development for Graphic Design
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1342 - Elementary Statistical Methods

- Apply for Graduation

Additional Comments:

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Computer Graphics

General

TCC Pathway
Arts & Humanities

Location(s)
Northeast

Program Name
Computer Graphics

Program Code
GRPH.T004.UG

Program Type
Level 1 Certificate

CIP
10.0303

Learn More
Learn more about Graphic Communication

Credential Map
Graphic Communication.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ARTC 1305 - Basic Graphic Design
- ARTC 1313 - Digital Publishing I
- ARTC 1353 - Computer Illustration
- ARTS 1316 - Drawing I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ARTC 1302 - Digital Imaging I
- ENGL 1301 - Composition I
- ARTS 1311 - Design I (2-dimensional)
- IMED 1316 - Web Design I

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ARTC 2317 - Typographic Design
- ARTC 2305 - Digital Imaging II
- ARTV 1303 - Basic Animation
- ARTC 2335 - Portfolio Development for Graphic Design

- Apply for Graduation

Total Semester Hours
36

Learning Outcomes

Photographic Retouching

General

TCC Pathway
Arts & Humanities

Location(s)
Northeast

Program Name
Photographic Retouching

Program Code
GRPH.T006.UG

Program Type
Level 1 Certificate

CIP
10.0301

Learn More
Learn more about Graphic Communication

Credential Map
Graphic Communication.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ARTC 1305 - Basic Graphic Design
- ARTC 1302 - Digital Imaging I
- ARTS 2356 - Photography I (Fine Arts Emphasis)

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ARTC 2305 - Digital Imaging II
- PHTC 1300 - Photo Digital Imaging I
  OR PHTC 1353 - Portraiture I
  OR ARTS 2357 - Photography II (Fine Arts Emphasis)

- Apply for Graduation

Total Semester Hours
15

Healthcare Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Healthcare Management, AAS

Program Code
HCMG.D001.UG

Program Type
Associate of Applied Science

CIP
52.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Healthcare Management

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 1301 - Business Principles
- HPRS 1206 - Essentials of Medical Terminology
- HITT 1345 - Health Care Delivery Systems
- MDCA 1343 - Medical Insurance
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
- HITT 1301 - Health Data Content and Structure
- HPRS 2331 - General Health Professions Management
- ACCT 2301 - Principles of Financial Accounting

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Healthcare Management Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ACCT 2302 - Principles of Managerial Accounting
- HRPO 2301 - Human Resources Management
- HPRS 2321 - Medical Law & Ethics for Health Pro

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HITT 2326 - Project Mngmnt for Health Professionals
- BMGT 2482 - Co-op Edu - Business Admin & Management

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)
- Component Area Option (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Healthcare Management Specialist I

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Healthcare Management Specialist I

Program Code
HCMG.T001.UG

Program Type
Level 1 Certificate

CIP
52.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Healthcare Management

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 1301 - Business Principles
- HPRS 1206 - Essentials of Medical Terminology
- HITT 1345 - Health Care Delivery Systems
- MDCA 1343 - Medical Insurance

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
- HITT 1301 - Health Data Content and Structure
- HPRS 2331 - General Health Professions Management

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Healthcare Management Elective (3 Semester Credit Hours)

Total Semester Hours
23

Learning Outcomes

Healthcare Management Specialist II

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Healthcare Management Specialist II

Program Code
HCMG.T002.UG

Program Type
Level 2 Certificate

CIP
52.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Healthcare Management

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 1301 - Business Principles
- HPRS 1206 - Essentials of Medical Terminology
- HITT 1345 - Health Care Delivery Systems
- MDCA 1343 - Medical Insurance
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
- HITT 1301 - Health Data Content and Structure
- HPRS 2331 - General Health Professions Management
- ACCT 2301 - Principles of Financial Accounting

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Healthcare Management Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ACNT 2302 - Accounting Capstone
- HRPO 2301 - Human Resources Management
- HPRS 2321 - Medical Law & Ethics for Health Pro

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
44

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Heating, Air Conditioning and Refrigeration Technology: Commercial HVAC/R Technician, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Heating, Air Conditioning and Refrigeration Technology: Commercial HVAC/R Technician, AAS

Program Code
HEAT.D005.UG

Program Type
Associate of Applied Science

CIP
15.0501

Learn More
Learn more about HVAC/R

Credential Map
Heating, Air Conditioning and Refrigeration Technology-Commercial HVAC-R Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HART 1401 - Basic Electricity for HVAC
- HART 1407 - Refrigeration Principles
- HART 2445 - Residential AC Systems Design
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HART 1441 - Residential Air Conditioning
- HART 2431 - Advanced Electricity for HVAC
- ENGL 1301 - Composition I
- KINE 1164 - Intro to Physical Fitness & Wellness

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from each option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HART 1403 - Air Conditioning Control Principles
- HART 2441 - Commercial Air Conditioning
- HART 2402 - Commercial Air Conditioning System Dsgn

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HART 2443 - Industrial Air Conditioning
- HART 2438 - Air Conditioning Installation/Startup
- HART 2434 - Advanced Air Conditioning Controls
  OR HART 2442 - Commercial Refrigeration

- Apply for Graduation

Total Semester Hours
60

Students must furnish their own hand tools.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Heating, Air Conditioning and Refrigeration Technology: Residential HVAC/R Technician, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Heating, Air Conditioning and Refrigeration Technology: Residential HVAC/R Technician, AAS

Program Code
HEAT.D006.UG

Program Type
Associate of Applied Science

CIP
15.0501

Learn More
Learn more about HVAC/R

Credential Map
Heating, Air Conditioning and Refrigeration Technology-Residential HVAC-R Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HART 1401 - Basic Electricity for HVAC
- HART 1407 - Refrigeration Principles
- HART 2445 - Residential AC Systems Design
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HART 1441 - Residential Air Conditioning
- HART 2431 - Advanced Electricity for HVAC
- ENGL 1301 - Composition I
- KINE 1164 - Intro to Physical Fitness & Wellness

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HART 1403 - Air Conditioning Control Principles
- HART 1445 - Gas and Electric Heating
- HART 2438 - Air Conditioning Installation/Startup

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HART 2449 - Heat Pumps
- HART 2436 - Air Conditioning Troubleshooting
- HART 2402 - Commercial Air Conditioning System Dsgn
  OR HART 2442 - Commercial Refrigeration

- Apply for Graduation

Total Semester Hours
60

Students must furnish their own hand tools.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

HVAC Installer

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
HVAC Installer

Program Code
HEAT.T008.UG

Program Type
Occupational Skills Award

CIP
15.0501

Learn More
Learn more about HVAC/R

Credential Map
Heating, Air Conditioning and Refrigeration Technology-Commercial HVAC-R Technician.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- TECM 1303 - Technical Calculations
- HART 1407 - Refrigeration Principles
- HART 2438 - Air Conditioning Installation/Startup

- Apply for Graduation

Total Semester Hours
11

Students must furnish their own hand tools.

Learning Outcomes

HVAC Residential Technician I

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
HVAC Residential Technician I

Program Code
HEAT.T009.UG

Program Type
Level 1 Certificate

CIP
15.0501

Learn More
Learn more about HVAC/R

Credential Map
Heating, Air Conditioning and Refrigeration Technology-Residential HVAC-R Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 1401 - Basic Electricity for HVAC
- HART 1407 - Refrigeration Principles
- TECM 1303 - Technical Calculations
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1332 - Contemporary Math (Quantitative Reason)

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 2431 - Advanced Electricity for HVAC
- HART 1441 - Residential Air Conditioning
- HART 2438 - Air Conditioning Installation/Startup

- Apply for Graduation

Total Semester Hours
23

Students must furnish their own hand tools.

Learning Outcomes

HVAC Residential Technician II

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
HVAC Residential Technician II

Program Code
HEAT.T010.UG

Program Type
Level 1 Certificate

CIP
15.0501

Learn More
Learn more about HVAC/R

Credential Map
Heating, Air Conditioning and Refrigeration Technology-Residential HVAC-R Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 1403 - Air Conditioning Control Principles
- HART 1445 - Gas and Electric Heating
- HART 2445 - Residential AC Systems Design

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 2436 - Air Conditioning Troubleshooting
- HART 2449 - Heat Pumps

- Apply for Graduation

Total Semester Hours
20

Students must furnish their own hand tools.

Learning Outcomes

HVAC/R Commercial Technician

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
HVAC/R Commercial Technician

Program Code
HEAT.T011.UG

Program Type
Level 2 Certificate

CIP
15.0501

Learn More
Learn more about HVAC/R

Credential Map
Heating, Air Conditioning and Refrigeration Technology-Commercial HVAC-R Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 1401 - Basic Electricity for HVAC
- HART 1407 - Refrigeration Principles
- HART 2438 - Air Conditioning Installation/Startup
- TECM 1303 - Technical Calculations
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1332 - Contemporary Math (Quantitative Reason)

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 2431 - Advanced Electricity for HVAC
- HART 1441 - Residential Air Conditioning
- HART 2445 - Residential AC Systems Design

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 1403 - Air Conditioning Control Principles
- HART 1445 - Gas and Electric Heating
- HART 2402 - Commercial Air Conditioning System Dsgn

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 2434 - Advanced Air Conditioning Controls
- HART 2441 - Commercial Air Conditioning
  OR HART 2436 - Air Conditioning Troubleshooting
- HART 2442 - Commercial Refrigeration
  OR HART 2443 - Industrial Air Conditioning
  OR HART 2449 - Heat Pumps

- Apply for Graduation

Total Semester Hours
51

Students must furnish their own hand tools.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Hospitality Management: Food Service Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Hospitality Management: Food Service Management, AAS

Program Code
HFSM.D001.UG

Program Type
Associate of Applied Science

CIP
52.0909

Learn More
Learn more about Hospitality Management

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CHEF 1301 - Basic Food Preparation
- CHEF 1305 - Sanitation and Safety
- HAMG 1321 - Introduction to Hospitality Industry
- HAMG 2301 - Principles of Food & Beverage Operations
- TRVM 1201 - Customer Sales and Service

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CHEF 2301 - Intermediate Food Preparation
- HECO 1322 - Nutrition and Diet Therapy
- RSTO 1304 - Dining Room Service
- RSTO 1325 - Purchasing for Hospitality Operations
- HAMG 1324 - Hospitality Human Resources Management
  OR HAMG 1340 - Hospitality Legal Issues

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HAMG 2305 - Hospitality Management and Leadership
- HAMG 2307 - Hospitality Marketing and Sales
- RSTO 1313 - Hospitality Supervision

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Social and Behavioral Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HAMG 2267 - Practicum-Hospitality Admin/Management
- ENGL 1301 - Composition I
- IFWA 2446 - Quantity Procedures
  OR CHEF 1400 - Professional Cooking and Meal Service

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)
- Elective (1 Semester Credit Hour)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Beverage Management I

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Beverage Management I

Program Code
HFSM.T001.UG

Program Type
Level 1 Certificate

CIP
52.0909

Learn More
Learn more about Hospitality Management

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HAMG 1321 - Introduction to Hospitality Industry
- HAMG 2301 - Principles of Food & Beverage Operations
- HAMG 2307 - Hospitality Marketing and Sales
- BTND 1371 - Introduction to Bartending/Mixologist

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- FDST 2335 - Wine Growing Regions of The Wo
- TRVM 1201 - Customer Sales and Service
- HAMG 1213 - Front Office Management
- HAMG 2330 - Convention & Group Management & Services

- Apply for Graduation

Total Semester Hours
22

Beverage Management II

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Beverage Management II

Program Code
HFSM.T002.UG

Program Type
Level 2 Certificate

CIP
52.0909

Learn More
Learn more about Hospitality Management

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HAMG 1321 - Introduction to Hospitality Industry
- HAMG 2301 - Principles of Food & Beverage Operations
- BTND 1371 - Introduction to Bartending/Mixologist

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- TRVM 1201 - Customer Sales and Service
- HAMG 1213 - Front Office Management
- RSTO 1319 - Viticulture and Enology
- FDST 2335 - Wine Growing Regions of The Wo
- HAMG 2330 - Convention & Group Management & Services

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- FDST 2333 - Wine Types & Sensory Evaluation
- RSTO 1304 - Dining Room Service
- CHEF 1305 - Sanitation and Safety
- HAMG 2307 - Hospitality Marketing and Sales

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
40

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Foodservice Operations

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Foodservice Operations

Program Code
HFSM.T003.UG

Program Type
Level 1 Certificate

CIP
52.0909

Learn More
Learn more about Hospitality Management

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HAMG 1321 - Introduction to Hospitality Industry
- CHEF 1305 - Sanitation and Safety
- RSTO 1304 - Dining Room Service
- RSTO 1325 - Purchasing for Hospitality Operations
- CHEF 1301 - Basic Food Preparation
- HAMG 2301 - Principles of Food & Beverage Operations

- Apply for Graduation

Total Semester Hours
18

Health Information Technology, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Health Information Technology, AAS

Program Code
HITT.D001.UG

Program Type
Associate of Applied Science

CIP
51.0707

Learn More
Learn more about Health Information Technology

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following courses must be completed prior to applying for admission to the Health Information Technology Program.

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- HPRS 1206 - Essentials of Medical Terminology

First Year
Type
Completion Requirement

Term I
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HITT 1301 - Health Data Content and Structure
- HITT 1311 - Health Information Systems
- HITT 1341 - Coding and Classification Systems
- HPRS 2201 - Pathophysiology

Term II
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HITT 1345 - Health Care Delivery Systems
- HITT 1342 - Ambulatory Coding
- HITT 1253 - Legal and Ethical Aspects of Health Info
- HPRS 2200 - Pharmacology for Health Professions

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term III
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HITT 2346 - Advanced Medical Coding
- HITT 2335 - Coding and Reimbursement Methodologies

Second Year
Type
Completion Requirement

Term IV
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HITT 2343 - Quality Assessment/Perform Improvement
- HITT 2260 - Clinical-Health Info/Med Record Tech
- PSYC 2301 - General Psychology
- ENGL 1301 - Composition I

Term V
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HITT 2326 - Project Mngmnt for Health Professionals
- HITT 2261 - Clinical - Health Info Med Rec Tech/Tec
- HITT 2149 - RHIT Competency Review
- HITT 2339 - Health Info Organization and Supervision

- Apply for Graduation

Total Semester Hours
60

Selective Admission Criteria:

All applicants to the Health Information Technology Program are required to attend an information session before the application deadline. Complete details of the Health Information Technology program admissions process can be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *Currently have a minimum GPA of 2.5*
- *Successfully complete the HESI A2 Entrance Exam with a minimum score of 70 in each section*
- *IELTS 6.5 minimum score or TOEFL iBT test 83 with a minimum score for ESL students*

Prior to applying, students with international college credits must contact the International Student Admissions and Compliance office at 817-515-1570 to verify which courses will transfer to TCC.

Once admitted to the program, students must complete and earn a minimum grade of "C" (75%) in all courses found on the program's degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check prior to the start of the program. Required immunizations must be completed prior to the beginning of classes.

After satisfactory completion of the above curriculum, the student is eligible to take the national examination to become certified as a Registered Health Information Technologist (RHIT). Graduates may also choose to sit for several medical coding certification exams.

The Tarrant County College Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 233 N. Michigan Avenue, 21st Floor, Chicago, Illinois 60601-5800. Phone: 312-233-1100.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Hospitality Management: Meeting and Event Planning/Convention and Group Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Hospitality Management: Meeting and Event Planning/Convention and Group Management, AAS

Program Code
HMEC.D001.UG

Program Type
Associate of Applied Science

CIP
52.0901

Learn More
Learn more about Hospitality Management

Credential Map
Hospitality Management-Meeting and Event Planning-Convention and Group Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HAMG 2301 - Principles of Food & Beverage Operations
- HAMG 1321 - Introduction to Hospitality Industry
- RSTO 1325 - Purchasing for Hospitality Operations
- TRVM 1201 - Customer Sales and Service
- TRVM 2301 - Intro to Convention/Meeting Management

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CHEF 1301 - Basic Food Preparation
- CHEF 1305 - Sanitation and Safety
- ENGL 1301 - Composition I
- RSTO 1304 - Dining Room Service
- HAMG 1324 - Hospitality Human Resources Management
  OR HAMG 1340 - Hospitality Legal Issues

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses--

Complete ALL of the following Courses:

- HAMG 2307 - Hospitality Marketing and Sales
- RSTO 1313 - Hospitality Supervision

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Social and Behavioral Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HAMG 2267 - Practicum-Hospitality Admin/Management
- HAMG 2330 - Convention & Group Management & Services
- TRVM 1327 - Special Events Design
- IFWA 2446 - Quantity Procedures
  OR CHEF 1400 - Professional Cooking and Meal Service

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)
- Elective (1 Semester Credit Hour)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Meeting & Event Planning/Convention & Group Management

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Meeting & Event Planning/Convention & Group Management

Program Code
HMEC.T001.UG

Program Type
Level 1 Certificate

CIP
52.0901

Learn More
Learn more about Hospitality Management

Credential Map
Hospitality Management-Meeting and Event Planning-Convention and Group Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- TRVM 2301 - Intro to Convention/Meeting Management
- HAMG 1213 - Front Office Management
- RSTO 1313 - Hospitality Supervision
- TRVM 1201 - Customer Sales and Service

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HAMG 1324 - Hospitality Human Resources Management
- TRVM 1327 - Special Events Design
- HAMG 1321 - Introduction to Hospitality Industry

- Apply for Graduation

Total Semester Hours
19

Horticulture, AAS

General

TCC Pathway
STEM

Location(s)
Northwest

Program Name
Horticulture, AAS

Program Code
HORT.D001.UG

Program Type
Associate of Applied Science

CIP
01.0601

Learn More
Learn more about Horticulture

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 1301 - Principles of Horticulture
- HALT 1313 - Horticultural Entomology
- CHEM 1405 - Introductory Chemistry I (Lecture/Lab)
  OR CHEM 1411 - General Chemistry I (Lecture + Lab)
- HALT 2314 - Plant Propagation

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Horticulture Elective (3 Semester Credit Hours)
- Horticulture Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 2318 - Soil Fertility and Fertilizers
- AGCR 2418 - Soil Science
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Horticulture Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 1307 - Plant Diseases
- GOVT 2305 - Federal Govrnment (Federal Const & Top)
  OR GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)
  OR HIST 1301 - United States History I
  OR HIST 1302 - United States History II

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Horticulture Elective (3 Semester Credit Hours)
- Horticulture Elective (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 2323 - Horticultural Pest Control
- HALT 1303 - Herbaceous Plants
- BCIS 1305 - Business Computer Applications

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Kinesiology Activity (1 Semester Credit Hour)
- Horticulture Elective (3 Semester Credit Hours)

- Apply for Graduation

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Horticulture

General

TCC Pathway
STEM

Location(s)
Northwest

Program Name
Horticulture

Program Code
HORT.T004.UG

Program Type
Level 1 Certificate

CIP
01.0601

Learn More
Learn more about Horticulture

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 1301 - Principles of Horticulture
- HALT 1313 - Horticultural Entomology
- AGCR 2418 - Soil Science

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Horticulture Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 2318 - Soil Fertility and Fertilizers
- HALT 1303 - Herbaceous Plants
- HALT 2323 - Horticultural Pest Control

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Horticulture Elective (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 1307 - Plant Diseases

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Horticulture Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
31

Plant Health Specialist

General

TCC Pathway
STEM

Location(s)
Northwest

Program Name
Plant Health Specialist

Program Code
HORT.T005.UG

Program Type
Level 1 Certificate

CIP
01.0601

Learn More
Learn more about Horticulture

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 1301 - Principles of Horticulture
- AGCR 2418 - Soil Science
- HALT 1307 - Plant Diseases

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 2318 - Soil Fertility and Fertilizers
- HALT 2323 - Horticultural Pest Control

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Plant Health Specialist Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
19

Sustainable Food Crops

General

TCC Pathway
STEM

Location(s)
Northwest

Program Name
Sustainable Food Crops

Program Code
HORT.T008.UG

Program Type
Occupational Skills Award

CIP
01.0601

Learn More
Learn more about Sustainable Food Crops

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HALT 1301 - Principles of Horticulture
- AGCR 2418 - Soil Science
- HALT 2307 - Horticultural Food Crops

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- AGCR 1304 - Intro to Sustainable Agriculture
  OR HALT 2321 - Small Farming

- Apply for Graduation

Total Semester Hours
13

Human Resources Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northeast, Connect

Program Name
Human Resources Management, AAS

Program Code
HRMG.D001.UG

Program Type
Associate of Applied Science

CIP
52.1001

Online Availability
This program can be completed fully online.

Learn More
Learn more about Human Resources

Credential Map
Human Resources Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HRPO 1306 - Basic Mediator Training
- HRPO 2305 - Human Resources Information Systems
- ENGL 1301 - Composition I
- BUSI 1301 - Business Principles

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Human Resources Management Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BMGT 1341 - Business Ethics
- HRPO 2307 - Organizational Behavior
- HRPO 1302 - Human Resources Training and Development
- HRPO 2301 - Human Resources Management
- HRPO 2306 - Benefits and Compensation

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HRPO 2304 - Employee Relations
- MATH 1324 - Mathematics Business & Social Sciences
- ACCT 2301 - Principles of Financial Accounting

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BMGT 2341 - Strategic Management
- ACCT 2302 - Principles of Managerial Accounting
- HRPO 2303 - Employment Practices

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Component Area Option (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Human Resources Specialist I

General

TCC Pathway
Business & Industry

Location(s)
South, Northeast, Northwest, Southeast, Connect

Program Name
Human Resources Specialist I

Program Code
HRMG.T001.UG

Program Type
Level 1 Certificate

CIP
52.1001

Online Availability
This program can be completed fully online.

Learn More
Learn more about Human Resources

Credential Map
Human Resources Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BUSI 1301 - Business Principles
- BMGT 1341 - Business Ethics
- HRPO 2307 - Organizational Behavior

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Human Resources Management Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HRPO 2301 - Human Resources Management
- HRPO 1306 - Basic Mediator Training
- HRPO 2306 - Benefits and Compensation
- HRPO 1302 - Human Resources Training and Development

- Apply for Graduation

Total Semester Hours
24

Learning Outcomes

Human Resources Specialist II

General

TCC Pathway
Business & Industry

Location(s)
Northeast, Connect

Program Name
Human Resources Specialist II

Program Code
HRMG.T002.UG

Program Type
Level 2 Certificate

CIP
52.1001

Online Availability
This program can be completed fully online.

Learn More
Learn more about Human Resources

Credential Map
Human Resources Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BUSI 1301 - Business Principles
- BMGT 1341 - Business Ethics
- HRPO 2307 - Organizational Behavior
- HRPO 1306 - Basic Mediator Training
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HRPO 2301 - Human Resources Management
- HRPO 2306 - Benefits and Compensation
- HRPO 1302 - Human Resources Training and Development

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Human Resources Management Elective (3 Semester Credit Hours)
- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- BMGT 2341 - Strategic Management
- HRPO 2305 - Human Resources Information Systems
- HRPO 2304 - Employee Relations

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
42

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Hospitality Management: Hospitality/Travel and Tourism Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Hospitality Management: Hospitality/Travel and Tourism Management, AAS

Program Code
HTTM.D001.UG

Program Type
Associate of Applied Science

CIP
52.0909

Learn More
Learn more about Hospitality Management

Credential Map
Hospitality Management-Hospitality or Travel and Tourism Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HAMG 1213 - Front Office Management
- HAMG 1321 - Introduction to Hospitality Industry
- HAMG 2301 - Principles of Food & Beverage Operations
- RSTO 1313 - Hospitality Supervision
- TRVM 1201 - Customer Sales and Service

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CHEF 1301 - Basic Food Preparation
- CHEF 1305 - Sanitation and Safety
- RSTO 1304 - Dining Room Service
- RSTO 1325 - Purchasing for Hospitality Operations
- TRVM 1300 - Introduction to Travel and Tourism
- HAMG 1324 - Hospitality Human Resources Management
  OR HAMG 1340 - Hospitality Legal Issues

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HAMG 2307 - Hospitality Marketing and Sales
- HAMG 1317 - Recreational Services
- HAMG 2305 - Hospitality Management and Leadership
- TRVM 2345 - Advanced Topics in Tourism

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- HAMG 2267 - Practicum-Hospitality Admin/Management

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)
- Social and Behavioral Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Hospitality/Hotel Supervision

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Hospitality/Hotel Supervision

Program Code
HTTM.T001.UG

Program Type
Level 1 Certificate

CIP
52.0909

Learn More
Learn more about Hospitality Management

Credential Map
Hospitality Management-Hospitality or Travel and Tourism Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HAMG 1321 - Introduction to Hospitality Industry
- TRVM 1201 - Customer Sales and Service
- RSTO 1313 - Hospitality Supervision
- HAMG 2301 - Principles of Food & Beverage Operations
- HAMG 1213 - Front Office Management
- HAMG 1324 - Hospitality Human Resources Management
  OR HAMG 1340 - Hospitality Legal Issues

- Apply for Graduation

Total Semester Hours
16

Hospitality/Travel & Tourism Supervision

General

TCC Pathway
Business & Industry

Location(s)
Southeast

Program Name
Hospitality/Travel & Tourism Supervision

Program Code
HTTM.T002.UG

Program Type
Level 2 Certificate

CIP
52.0903

Learn More
Learn more about Hospitality Management

Credential Map
Hospitality Management-Hospitality or Travel and Tourism Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HAMG 1321 - Introduction to Hospitality Industry
- HAMG 1213 - Front Office Management
- HAMG 1317 - Recreational Services
- HAMG 2301 - Principles of Food & Beverage Operations
- TRVM 1201 - Customer Sales and Service

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- CHEF 1305 - Sanitation and Safety
- CHEF 1301 - Basic Food Preparation
- RSTO 1325 - Purchasing for Hospitality Operations
- TRVM 1300 - Introduction to Travel and Tourism
- HAMG 1324 - Hospitality Human Resources Management
  OR HAMG 1340 - Hospitality Legal Issues

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- RSTO 1304 - Dining Room Service
- HAMG 2307 - Hospitality Marketing and Sales
- TRVM 2345 - Advanced Topics in Tourism
- RSTO 1313 - Hospitality Supervision
- HAMG 2305 - Hospitality Management and Leadership

- Apply for Graduation

Total Semester Hours
43

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Industrial Technician, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Industrial Technician, AAS

Program Code
INMT.D003.UG

Program Type
Associate of Applied Science

CIP
15.0612

Learn More
Learn more about Industrial Technician

Credential Map
Industrial Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CETT 1409 - DC-AC Circuits
- HART 1401 - Basic Electricity for HVAC
- INMT 1305 - Introduction to Industrial Mainentance
- RBTC 1401 - Programmable Logic Controllers

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HART 2431 - Advanced Electricity for HVAC
- HYDR 1345 - Hydraulics and Pneumatics
- WLDG 1312 - Intro to Flux Cored Arc Welding (FCAW)
- RBTC 1351 - Robotic Mechanisms

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HART 1403 - Air Conditioning Control Principles
- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair
- WLDG 1417 - Introduction to Layout and Fabrication
- INMT 2345 - Industrial Troubleshooting (Inactive)
- ENGL 1301 - Composition I

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SPCH 1321 - Business and Professional Communication
- GOVT 2305 - Federal Govrnment (Federal Const & Top)
- INMT 2380 - Coop Educ Industrial/Manufacturing Tech

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Industrial Technician I

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Industrial Technician I

Program Code
INMT.T005.UG

Program Type
Level 1 Certificate

CIP
15.0612

Learn More
Learn more about Industrial Technician

Credential Map
Industrial Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- CETT 1409 - DC-AC Circuits
- HART 1401 - Basic Electricity for HVAC
- INMT 1305 - Introduction to Industrial Mainentance
- RBTC 1401 - Programmable Logic Controllers

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HART 2431 - Advanced Electricity for HVAC
- HYDR 1345 - Hydraulics and Pneumatics
- WLDG 1312 - Intro to Flux Cored Arc Welding (FCAW)

- Apply for Graduation

Total Semester Hours
25

Learning Outcomes

Industrial Technician II

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Industrial Technician II

Program Code
INMT.T006.UG

Program Type
Level 2 Certificate

CIP
15.0612

Learn More
Learn more about Industrial Technician

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- CETT 1409 - DC-AC Circuits
- HART 1401 - Basic Electricity for HVAC
- INMT 1305 - Introduction to Industrial Mainentance
- RBTC 1401 - Programmable Logic Controllers

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HART 2431 - Advanced Electricity for HVAC
- HYDR 1345 - Hydraulics and Pneumatics
- WLDG 1312 - Intro to Flux Cored Arc Welding (FCAW)
- RBTC 1351 - Robotic Mechanisms

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HART 1403 - Air Conditioning Control Principles
- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair
- WLDG 1417 - Introduction to Layout and Fabrication
- INMT 2345 - Industrial Troubleshooting (Inactive)

- Apply for Graduation

Total Semester Hours
42

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Cloud Computing, AAS

General

TCC Pathway
STEM

Location(s)
Northeast

Program Name
Information Technology: Cloud Computing, AAS

Program Code
ITCL.D001.UG

Program Type
Associate of Applied Science

CIP
11.0902

Learn More
Learn more about Cloud Computing

Credential Map
Information Technology-Cloud Computing.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1425 - Fundamentals of Networking Technologies
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Math Elective - Information Technology (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITNW 1309 - Fundamentals of Cloud Computing
- ITSE 1479 - Introduction to Scripting Languages
- ITSE 1303 - Introduction to MySQL

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Social and Behavioral Science (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- ITSE 1450 - System Analysis and Design

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITNW 1408 - Implement/Support Client Operating Syst
- ITNW 1436 - Cloud Deployment & Infrastructure Manage
- ITSC 1416 - Linux Installation and Configuration

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITNW 2427 - Advanced Cloud Concepts
- ITNW 1454 - Implementing and Supporting Servers
- ITSY 1300 - Fundamentals of Information Security

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Cloud Computing I

General

TCC Pathway
STEM

Location(s)
Northeast

Program Name
Information Technology: Cloud Computing I

Program Code
ITCL.T001.UG

Program Type
Level 1 Certificate

CIP
11.0902

Learn More
Learn more about Cloud Computing

Credential Map
Information Technology-Cloud Computing.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1425 - Fundamentals of Networking Technologies
- ITSE 1479 - Introduction to Scripting Languages
- ITNW 1309 - Fundamentals of Cloud Computing

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ITSE 1303 - Introduction to MySQL
- ITSE 1450 - System Analysis and Design
- ITNW 1408 - Implement/Support Client Operating Syst
- ITNW 1436 - Cloud Deployment & Infrastructure Manage

- Apply for Graduation

Total Semester Hours
30

Learning Outcomes

Information Technology: Cybersecurity, AAS

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Information Technology: Cybersecurity, AAS

Program Code
ITCY.D001.UG

Program Type
Associate of Applied Science

CIP
11.1003

Online Availability
This program can be completed fully online.

Learn More
Learn more about Cybersecurity

Credential Map
Information Technology-Cybersecurity.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Math Elective - Information Technology (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- COSC 1436 - Programming Fundamentals I
- ITNW 1425 - Fundamentals of Networking Technologies

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Social and Behavioral Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITSY 1300 - Fundamentals of Information Security
- ITSY 2400 - Operating System Security

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITSY 2330 - Intrustion Detection
- ITSY 2401 - Firewalls and Network Security
- ITSY 2342 - Incident Response & Handling
  OR ITSY 2443 - Computer System Forensics

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITSY 2372 - Ethical Hacking
- ITSY 2341 - Security Management Practices
- ITSY 2459 - Security Assessment and Auditing

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Cybersecurity Specialist

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Information Technology: Cybersecurity Specialist

Program Code
ITCY.T001.UG

Program Type
Level 1 Certificate

CIP
11.1003

Online Availability
This program can be completed fully online.

Learn More
Learn more about Cybersecurity

Credential Map
Information Technology-Cybersecurity.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing
- ITNW 1309 - Fundamentals of Cloud Computing
- ITNW 1425 - Fundamentals of Networking Technologies
- ITSY 1300 - Fundamentals of Information Security

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ITSY 2341 - Security Management Practices
- ITSY 2400 - Operating System Security
- ITSY 2401 - Firewalls and Network Security
- ITSY 2330 - Intrustion Detection

- Apply for Graduation

Total Semester Hours
27

Learning Outcomes

Information Technology: Ethical Hacking

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Information Technology: Ethical Hacking

Program Code
ITCY.T002.UG

Program Type
Level 2 Certificate

CIP
11.1003

Online Availability
This program can be completed fully online.

Learn More
Learn more about Cybersecurity

Credential Map
Information Technology-Cybersecurity.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITNW 1425 - Fundamentals of Networking Technologies
- ITSY 1300 - Fundamentals of Information Security
- ITSY 2341 - Security Management Practices
- ITSY 2400 - Operating System Security

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- COSC 1436 - Programming Fundamentals I
- ITSY 2401 - Firewalls and Network Security
- ITSY 2330 - Intrustion Detection

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITSY 2342 - Incident Response & Handling
  OR ITSY 2443 - Computer System Forensics
- ITSY 2372 - Ethical Hacking

- Apply for Graduation

Total Semester Hours
47

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Game, Simulation, and Animation Design, AAS

General

TCC Pathway
STEM

Location(s)
South

Program Name
Information Technology: Game, Simulation, and Animation Design, AAS

Program Code
ITGM.D001.UG

Program Type
Associate of Applied Science

CIP
11.0204

Learn More
Learn more about Game, Simulation and Animation Design

Credential Map
Information Technology-Game, Simulation, and Animation Design.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Math Elective - Information Technology (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ITNW 1425 - Fundamentals of Networking Technologies
- COSC 1436 - Programming Fundamentals I

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Social and Behavioral Science (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:

- ITSY 1300 - Fundamentals of Information Security

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- GAME 1443 - Game and Simulation Programming I
- GAME 1304 - Level Design
  OR GAME 2325 - 3D Animation II - Character Setup
- GAME 1328 - Video Game Design
  OR GAME 1436 - Introduction to 3D Game Modeling
- GAME 1334 - Video Game Art I
  OR GAME 1409 - Introduction to Animation Programming

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- GAME 1403 - Introduction to Game Design/Development
- GAME 1459 - Game/Simulation Programming II
- GAME 2308 - Portfolio for Game Development

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Game and Simulation Programming I

General

TCC Pathway
STEM

Location(s)
South

Program Name
Information Technology: Game and Simulation Programming I

Program Code
ITGM.T001.UG

Program Type
Level 1 Certificate

CIP
11.0204

Learn More
Learn more about Game, Simulation and Animation Design

Credential Map
Information Technology-Game, Simulation, and Animation Design.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- GAME 1304 - Level Design
- GAME 1403 - Introduction to Game Design/Development

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- GAME 1328 - Video Game Design
- GAME 1334 - Video Game Art I
  OR GAME 1409 - Introduction to Animation Programming
- GAME 1443 - Game and Simulation Programming I

- Apply for Graduation

Total Semester Hours
20

Learning Outcomes

Information Technology: Game and Simulation Programming II

General

TCC Pathway
STEM

Location(s)
South

Program Name
Information Technology: Game and Simulation Programming II

Program Code
ITGM.T002.UG

Program Type
Level 2 Certificate

CIP
11.0204

Learn More
Learn more about Game, Simulation and Animation Design

Credential Map
Information Technology-Game, Simulation, and Animation Design.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1436 - Programming Fundamentals I
- ITNW 1309 - Fundamentals of Cloud Computing
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1425 - Fundamentals of Networking Technologies
- GAME 1334 - Video Game Art I
  OR GAME 1409 - Introduction to Animation Programming

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITSY 1300 - Fundamentals of Information Security
- GAME 1304 - Level Design
  OR GAME 2325 - 3D Animation II - Character Setup
- GAME 1403 - Introduction to Game Design/Development
- GAME 1328 - Video Game Design
  OR GAME 1436 - Introduction to 3D Game Modeling
- GAME 1443 - Game and Simulation Programming I

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- GAME 1459 - Game/Simulation Programming II

- Apply for Graduation

Total Semester Hours
39

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Animation for Game and Simulation

General

TCC Pathway
STEM

Location(s)
South

Program Name
Information Technology: Animation for Game and Simulation

Program Code
ITGM.T003.UG

Program Type
Level 1 Certificate

CIP
11.0204

Learn More
Learn more about Game, Simulation and Animation Design

Credential Map
Information Technology-Game, Simulation, and Animation Design.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing
- GAME 1334 - Video Game Art I
  OR GAME 1409 - Introduction to Animation Programming
- GAME 1403 - Introduction to Game Design/Development

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- GAME 1436 - Introduction to 3D Game Modeling
- GAME 2325 - 3D Animation II - Character Setup
- GAME 1443 - Game and Simulation Programming I

- Apply for Graduation

Total Semester Hours
21

Learning Outcomes

Information Technology: Network Support, AAS

General

TCC Pathway
STEM

Location(s)
South, Northeast, Southeast

Program Name
Information Technology: Network Support, AAS

Program Code
ITNS.D001.UG

Program Type
Associate of Applied Science

CIP
11.1001

Learn More
Learn more about Network Support

Credential Map
Information Technology-Network Support.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Math Elective - Information Technology (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 1436 - Programming Fundamentals I
- ITNW 1408 - Implement/Support Client Operating Syst

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Social and Behavioral Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ITNW 1425 - Fundamentals of Networking Technologies
- ITCC 1414 - CCNA 1: Introduction to Networks
- ITNW 1454 - Implementing and Supporting Servers

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ITCC 1444 - CCNA 2: Switch/Routing/Wireless Essent
- ITCC 2420 - CCNA 3: Enterp/Netwrk/Security/Automat
- ITSY 1300 - Fundamentals of Information Security
- ITSC 1416 - Linux Installation and Configuration

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Cisco Support

General

TCC Pathway
STEM

Location(s)
South, Northeast, Southeast

Program Name
Information Technology: Cisco Support

Program Code
ITNS.T001.UG

Program Type
Level 1 Certificate

CIP
11.1001

Learn More
Learn more about Network Support

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITNW 1425 - Fundamentals of Networking Technologies
- ITCC 1414 - CCNA 1: Introduction to Networks

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITCC 1444 - CCNA 2: Switch/Routing/Wireless Essent
- ITCC 2420 - CCNA 3: Enterp/Netwrk/Security/Automat

- Apply for Graduation

Total Semester Hours
16

Information Technology: Information Technology Support

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River

Program Name
Information Technology: Information Technology Support

Program Code
ITNS.T002.UG

Program Type
Level 1 Certificate

CIP
11.0103

Learn More
Learn more about Network Support

Credential Map
Information Technology-Network Support.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ITNW 1425 - Fundamentals of Networking Technologies

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1436 - Programming Fundamentals I
- ITSY 1300 - Fundamentals of Information Security

- Apply for Graduation

Total Semester Hours
21

Learning Outcomes

Information Technology: Network Support

General

TCC Pathway
STEM

Location(s)
South, Northeast, Southeast

Program Name
Information Technology: Network Support

Program Code
ITNS.T003.UG

Program Type
Level 2 Certificate

CIP
11.1001

Learn More
Learn more about Network Support

Credential Map
Information Technology-Network Support.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ITCC 1414 - CCNA 1: Introduction to Networks
- ITNW 1425 - Fundamentals of Networking Technologies

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1436 - Programming Fundamentals I
- ITNW 1408 - Implement/Support Client Operating Syst
- ITNW 1454 - Implementing and Supporting Servers
- ITCC 1444 - CCNA 2: Switch/Routing/Wireless Essent
- ITCC 2420 - CCNA 3: Enterp/Netwrk/Security/Automat

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITSY 1300 - Fundamentals of Information Security

- Apply for Graduation

Total Semester Hours
41

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Programming, AAS

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Information Technology: Programming, AAS

Program Code
ITPG.D001.UG

Program Type
Associate of Applied Science

CIP
11.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Programming

Credential Map
Information Technology-Programming.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Math Elective - Information Technology (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 1436 - Programming Fundamentals I
- ITNW 1425 - Fundamentals of Networking Technologies

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Social and Behavioral Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:

- ITSY 1300 - Fundamentals of Information Security

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ITSE 2417 - Java Programming
- COSC 1437 - Programming Fundamentals II
- ITSE 1479 - Introduction to Scripting Languages
  OR ITSE 1430 - Introduction to C# Programming

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 2436 - Programming Fundamentals III
- ITSE 2409 - Database Programming
- ITSE 1450 - System Analysis and Design

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Programming I

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Information Technology: Programming I

Program Code
ITPG.T001.UG

Program Type
Level 1 Certificate

CIP
11.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Programming

Credential Map
Information Technology-Programming.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- COSC 1436 - Programming Fundamentals I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1437 - Programming Fundamentals II
- ITNW 1425 - Fundamentals of Networking Technologies
- ITSY 1300 - Fundamentals of Information Security

- Apply for Graduation

Total Semester Hours
25

Learning Outcomes

Information Technology: Programming II

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River, Connect

Program Name
Information Technology: Programming II

Program Code
ITPG.T002.UG

Program Type
Level 2 Certificate

CIP
11.0201

Online Availability
This program can be completed fully online.

Learn More
Learn more about Programming

Credential Map
Information Technology-Programming.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ITSE 2417 - Java Programming
- COSC 1437 - Programming Fundamentals II
- ITSE 1479 - Introduction to Scripting Languages
  OR ITSE 1430 - Introduction to C# Programming
- ITNW 1425 - Fundamentals of Networking Technologies

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 2436 - Programming Fundamentals III
- ITSE 2409 - Database Programming
- ITSY 1300 - Fundamentals of Information Security

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
30

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Web Applications Programming, AAS

General

TCC Pathway
STEM

Location(s)
South, Northeast, Southeast, Trinity River

Program Name
Information Technology: Web Applications Programming, AAS

Program Code
ITWB.D001.UG

Program Type
Associate of Applied Science

CIP
11.0202

Learn More
Learn more about Web Applications Programming

Credential Map
Information Technology-Web Applications.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Math Elective - Information Technology (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- COSC 1436 - Programming Fundamentals I
- ITNW 1425 - Fundamentals of Networking Technologies

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Social and Behavioral Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:

- ITSY 1300 - Fundamentals of Information Security

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ITSE 1411 - Beginning Web Programming
- ITSE 1333 - Mobile Applications Development
- ITSE 2409 - Database Programming

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ITSE 2302 - Intermediate Web Programming
- ITSE 2310 - iOS Application Programming
- ITSE 2371 - Android OS Programming
- INEW 2434 - Advanced Web Programming

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Information Technology: Web Applications Programming I

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River

Program Name
Information Technology: Web Applications Programming I

Program Code
ITWB.T001.UG

Program Type
Level 1 Certificate

CIP
11.0202

Learn More
Learn more about Web Applications Programming

Credential Map
Information Technology-Web Applications.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- COSC 1436 - Programming Fundamentals I
- CPMT 1403 - Introduction to Computer Technology
- ITNW 1309 - Fundamentals of Cloud Computing

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITNW 1425 - Fundamentals of Networking Technologies
- ITSY 1300 - Fundamentals of Information Security
- ITSE 1333 - Mobile Applications Development
- ITSE 1411 - Beginning Web Programming

- Apply for Graduation

Total Semester Hours
28

Learning Outcomes

Information Technology: Web Applications Programming II

General

TCC Pathway
STEM

Location(s)
South, Northeast, Northwest, Southeast, Trinity River

Program Name
Information Technology: Web Applications Programming II

Program Code
ITWB.T002.UG

Program Type
Level 2 Certificate

CIP
11.0202

Learn More
Learn more about Web Applications Programming

Credential Map
Information Technology-Web Applications.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COSC 1436 - Programming Fundamentals I
- ITNW 1425 - Fundamentals of Networking Technologies
- ITSE 1411 - Beginning Web Programming
- ITSE 1333 - Mobile Applications Development

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITSE 2409 - Database Programming
- ITSE 2371 - Android OS Programming
- ITSE 2310 - iOS Application Programming
- ITSE 2302 - Intermediate Web Programming

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ITSY 1300 - Fundamentals of Information Security

- Apply for Graduation

Total Semester Hours
31

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Paralegal Studies, AAS

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Paralegal Studies, AAS

Program Code
LEGA.D002.UG

Program Type
Associate of Applied Science

CIP
22.0302

Learn More
Learn more about Paralegal Studies

Credential Map
Paralegal Studies.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- LGLA 1307 - Intro to Law and the Legal Profession
- LGLA 1303 - Legal Research
- ACCT 2301 - Principles of Financial Accounting
- ENGL 1301 - Composition I
- PSYC 2315 - Psychology of Adjustment

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- LGLA 1305 - Legal Writing
- LGLA 1345 - Civil Litigation
- BCIS 1305 - Business Computer Applications
- ENGL 1302 - Composition II

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- LGLA 1353 - Wills, Trusts & Probate Administration
- LGLA 2303 - Torts and Personal Injury Law
- BUSI 2301 - Business Law
- SPCH 1321 - Business and Professional Communication

AND

Take LGLA 2380, or both LGLA 2281 and LGLA 2288

Complete ANY of the following Course Sets:

- Cooperative Education Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- LGLA 1355 - Family Law
- LGLA 2311 - Business Organizations
- CRIJ 1306 - Court Systems and Practices
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

LGLA 2281 and LGLA 2288 taken in consecutive semesters may be substituted for LGLA 2380 in order to fulfill the Cooperative Education requirement of this program. LGLA 2380 may be taken in the student's final semester. All Cooperative Education and Internship classes require the consent of the program coordinator.

The Paralegal Studies program, including both the Associate of Applied Science Degree and the Certificate of Completion, is approved by the American Bar Association.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Paralegal Studies

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Paralegal Studies

Program Code
LEGA.T002.UG

Program Type
Advanced Technical Certificate

CIP
22.0302

Learn More
Learn more about Paralegal Studies

Credential Map
Paralegal Studies.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LGLA 1307 - Intro to Law and the Legal Profession
- LGLA 1303 - Legal Research
- LGLA 1305 - Legal Writing
- LGLA 1345 - Civil Litigation

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LGLA 1353 - Wills, Trusts & Probate Administration
- LGLA 2303 - Torts and Personal Injury Law
- BUSI 2301 - Business Law

AND

Take LGLA 2380, or both LGLA 2281 and LGLA 2288

Complete ALL of the following Course Sets:
- Cooperative Education Requirement

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LGLA 1355 - Family Law
- LGLA 2311 - Business Organizations
- CRIJ 1306 - Court Systems and Practices

- Apply for Graduation

Total Semester Hours
33

LGLA 2281 and LGLA 2288 taken in consecutive semesters may be substituted for LGLA 2380 in order to fulfill the Cooperative Education requirement of this program. LGLA 2380 may be taken in the student's final semester. All Cooperative Education and Internship classes require the consent of the program coordinator.

The Certificate of Completion will be awarded only to students who have earned a baccalaureate degree prior to beginning the certificate program and who wish to complete the requirements to take the Certified Paralegal (CP) examination given by the National Association of Legal Assistants, Inc.(NALA).

Learning Outcomes

Library Technician, AAS

General

TCC Pathway
STEM

Location(s)
Trinity River

Program Name
Library Technician, AAS

Program Code
LIBR.D001.UG

Program Type
Associate of Applied Science

CIP
25.0301

Learn More
Learn more about Library Technician

Credential Map
Library Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I (Inactive)
- LBRA 1371 - Introduction to Library Technology
- HIST 1301 - United States History I
- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HIST 1301 - United States History I
- LBRA 1373 - Public Services
- PSYC 2301 - General Psychology

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Component Area Option (3 Semester Credit Hours)
- Creative Arts (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GOVT 2305 - Federal Govrnment (Federal Const & Top)
- LBRA 1375 - Information Sources and Services
- ENGL 2328 - American Literature II

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Social and Behavioral Science (3 Semester Credit Hours)
- Mathematics (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)
- LBRA 1372 - Organization of Information
- LBRA 1174 - Practicum in Library Technology
- ITSW 1407 - Introduction to Database
  OR ITSE 1411 - Beginning Web Programming

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Life and Physical Sciences (4 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Library Technician

General

TCC Pathway
STEM

Location(s)
Trinity River

Program Name
Library Technician

Program Code
LIBR.T001.UG

Program Type
Level 1 Certificate

CIP
25.0301

Learn More
Learn more about Library Technician

Credential Map
Library Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LBRA 1371 - Introduction to Library Technology
- BCIS 1305 - Business Computer Applications

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LBRA 1375 - Information Sources and Services
- LBRA 1373 - Public Services
- LBRA 1372 - Organization of Information
- LBRA 1174 - Practicum in Library Technology

- Apply for Graduation

Total Semester Hours
19

Electrical Line Technician, AAS

General

TCC Pathway
STEM

Location(s)
South

Program Name
Electrical Line Technician, AAS

Program Code
LNWK.D001.UG

Program Type
Associate of Applied Science

CIP
46.0303

Learn More
Learn more about Electrical Line Technician

Credential Map
Electrical Line Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LNWK 1301 - Orientation and Line Skill Fundamentals
- TECM 1303 - Technical Calculations
- LNWK 1311 - Climbing Skills
- LNWK 2321 - Live Line Safety

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LNWK 1341 - Distribution Operations
- OSHT 1305 - OSHA Regulations-Construction
- COSC 1301 - Introduction to Computing
- HART 1401 - Basic Electricity for HVAC
- GEOL 1305 - Environmental Science (Lecture Only)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HART 2431 - Advanced Electricity for HVAC
- LNWK 2322 - Distribution Line Construction
- LNWK 1331 - Transformer Connections

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- LNWK 1371 - Underground Distribution Systems
- LNWK 2324 - Troubleshooting Distribution Systems
- KINE 1164 - Intro to Physical Fitness & Wellness

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)
- Government and Political Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Ground Technician

General

TCC Pathway
STEM

Location(s)
South

Program Name
Ground Technician

Program Code
LNWK.T001.UG

Program Type
Level 1 Certificate

CIP
46.0303

Learn More
Learn more about Electrical Line Technician

Credential Map
Electrical Line Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- LNWK 1301 - Orientation and Line Skill Fundamentals
- TECM 1303 - Technical Calculations
- LNWK 1311 - Climbing Skills
- LNWK 2321 - Live Line Safety

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- LNWK 1341 - Distribution Operations
- OSHT 1305 - OSHA Regulations-Construction
- COSC 1301 - Introduction to Computing
- HART 1401 - Basic Electricity for HVAC

- Apply for Graduation

Total Semester Hours
25

Line Technician

General

TCC Pathway
STEM

Location(s)
South

Program Name
Line Technician

Program Code
LNWK.T002.UG

Program Type
Level 2 Certificate

CIP
46.0303

Learn More
Learn more about Electrical Line Technician

Credential Map
Electrical Line Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- LNWK 1301 - Orientation and Line Skill Fundamentals
- TECM 1303 - Technical Calculations
- LNWK 1311 - Climbing Skills
- LNWK 2321 - Live Line Safety

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- LNWK 1341 - Distribution Operations
- OSHT 1305 - OSHA Regulations-Construction
- COSC 1301 - Introduction to Computing
- HART 1401 - Basic Electricity for HVAC

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HART 2431 - Advanced Electricity for HVAC
- LNWK 2322 - Distribution Line Construction
- LNWK 1331 - Transformer Connections
- GEOL 1305 - Environmental Science (Lecture Only)

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:

- LNWK 2324 - Troubleshooting Distribution Systems
- LNWK 1371 - Underground Distribution Systems

- Apply for Graduation

Total Semester Hours
44

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Logistics and Supply Chain Management, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Logistics and Supply Chain Management, AAS

Program Code
LOGI.D002.UG

Program Type
Associate of Applied Science

CIP
52.0203

Learn More
Learn more about Logistics & Supply Chain Management

Credential Map
Logistics Supply Chain Management.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
- ENGL 1301 - Composition I
- LMGT 1319 - Introduction to Business Logistics
- LMGT 1323 - Domestic & International Transport Mgt
- LMGT 2334 - Principles of Traffic Management

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ECON 2301 - Principles of Macroeconomics
  OR ECON 2302 - Principles of Microeconomics
- LMGT 1325 - Warehouse & Distribution Center Mgt
- IBUS 1301 - Principles of Exports
- IBUS 1302 - Principles of Imports
- MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1342 - Elementary Statistical Methods

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 2301 - Business Law
- ACCT 2301 - Principles of Financial Accounting
- MRKG 1311 - Principles of Marketing
- SPCH 1321 - Business and Professional Communication
  OR SPCH 1311 - Introduction to Speech Communication

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BMGT 1313 - Principles of Purchasing
- BMGT 1331 - Production and Operations Management
- BMGT 2331 - Principles of Quality Management
- LMGT 2371 - Ldrship in Logistics & Supply Chain Mgmt

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- LMGT 2388 - Internship: Logistics & Materials Mgt

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Transportation Management

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Transportation Management

Program Code
LOGI.T001.UG

Program Type
Level 1 Certificate

CIP
52.0209

Learn More
Learn more about Logistics & Supply Chain Management

Credential Map
Logistics Supply Chain Management.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
- LMGT 1319 - Introduction to Business Logistics
- ECON 2302 - Principles of Microeconomics
  OR ECON 2301 - Principles of Macroeconomics
- LMGT 1323 - Domestic & International Transport Mgt
- LMGT 2334 - Principles of Traffic Management

- Apply for Graduation

Total Semester Hours
15

Learning Outcomes

Warehouse Management

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Warehouse Management

Program Code
LOGI.T003.UG

Program Type
Level 1 Certificate

CIP
52.0409

Learn More
Learn more about Logistics & Supply Chain Management

Credential Map
Logistics Supply Chain Management.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- BCIS 1305 - Business Computer Applications
- LMGT 1319 - Introduction to Business Logistics
- LMGT 1325 - Warehouse & Distribution Center Mgt
- IBUS 1301 - Principles of Exports
- IBUS 1302 - Principles of Imports

- Apply for Graduation

Total Semester Hours
15

Long Term Care Administration

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Long Term Care Administration

Program Code
LONG.T001.UG

Program Type
Level 1 Certificate

CIP
51.0718

Learn More
Learn more about Long Term Care Administration

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- LTCA 1311 - Intro to Long Term Care Administration
- LTCA 1312 - Resident Care in Long Term Care Facility
- LTCA 2660 - Clinical-Hospital/Health Facilities Adm

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- LTCA 1313 - Organization/Mgt Long Term Care Facilit
- LTCA 2314 - Long Term Care Law
- LTCA 2315 - Financial Mgt of Long Term Care Facility
- LTCA 2661 - Clinical-Hospital/Health Facilities Adm

- Apply for Graduation

Total Semester Hours
27

Program Information:

The Nursing Home Administration course is offered in five three-semester-hour courses and is designed to provide the didactic requirements of the Texas Department of Aging and Disability Services (DADS). It is also intended to assist the participant in preparing for the state licensure examination. DADS requirements for individuals to sit for the licensure exam are:

1. *Bachelor's degree*
2. *Completion of 15 academic credit hours in long term care administration*
3. *Completion of a 1,000-hour internship in an approved facility*

Internship courses are for those students who are unable to obtain their own required internship experiences in an approved facility.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Medical Assistant

General

TCC Pathway
Health Science

Location(s)
Trinity River, South

Program Name
Medical Assistant

Program Code
MDCAT001.UG

Program Type
Level 1 Certificate

CIP
51.0801

Learn More
Learn more about Medical Assistant

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HPRS 1206 - Essentials of Medical Terminology
- MDCA 1310 - Medical Asst Interpersonal/Comm Skills
- MDCA 1409 - Anatomy and Physiology for Medical Asst
  OR BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HPRS 1304 - Basic Health Professional Skills
- MDCA 1352 - Medical Assistant Lab Procedures
- MDCA 1417 - Procedures in a Clinical Setting
- MDCA 1160 - Clinical-Medical/Clinical Assistant

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MDCA 1321 - Administrative Procedures
- MDCA 1448 - Pharmacology/Administration Medications
- MDCA 1302 - Human Disease and Pathophysiology
- MDCA 1161 - Clinical-Medical/Clinical Assistant

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MDCA 1343 - Medical Insurance
- MDCA 1305 - Medical Law and Ethics
- MDCA 1254 - Medical Asst Credentialing Exam Review
- MDCA 1162 - Clinical-Medical/Clinical Assistant

- Apply for Graduation

Total Semester Hours
40

Selective Admission Criteria:

All applicants to the Medical Assistant Program are required to attend an information session before the application deadline. Complete details of the Medical Assistant program admissions process may be found on the TCC website.

Applicant Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *IELTS 6.5 minimum score or TOEFL iBT test with 83 as a minimum score for ESL students*

Prior to application, students with international college credits must contact the International Student Admissions and Compliance office at 817-515-1570 to verify those courses that will transfer to TCC.

Once admitted to the program, students must maintain a minimum grade of "C" (75%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check, both of which must report negative in order to remain in the program.

Required immunizations must be completed prior to the beginning of clinical rotations.

After successful completion of the above curriculum, the student is eligible to take the certification examination to become a Certified Medical Assistant.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Mental Health and Human Services, AAS

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Mental Health and Human Services, AAS

Program Code
MENT.D004.UG

Program Type
Associate of Applied Science

CIP
51.1502

Learn More
Learn more about Mental Health & Human Services

Credential Map
Mental Health and Human Services.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- DAAC 2341 - Counseling of Substance Use Disorders
- SCWK 1303 - Ethics for Social Service Professionals
- SOCW 2361 - Introduction to Social Work

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Social Work Directed Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1302 - Composition II
- MATH 1342 - Elementary Statistical Methods
- PSYT 2339 - Counseling Theories
- SOCW 2362 - Social Welfare: Legislation/Program/Srv
- SOCI 1306 - Social Problems

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DAAC 2307 - Family Intervent-Substance Use Disorder
- GERS 1301 - Introduction to Gerontology
- GERS 1342 - Aging and Mental Health

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Social Work Directed Elective (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- DAAC 2330 - Multicultural Counseling
- SCWK 2305 - Special Problems of Youth
- SOCW 2389 - Academic Cooperative

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Mental Health Substance Abuse Counseling, AAS

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Mental Health Substance Abuse Counseling, AAS

Program Code
MENT.D005.UG

Program Type
Associate of Applied Science

CIP
51.1501

Learn More
Learn more about Mental Health Substance Abuse Counseling

Credential Map
Mental Health Substance Abuse Counseling.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- DAAC 1304 - Pharmacology of Substance Use Disorders
- PSYC 2301 - General Psychology
- PSYT 2339 - Counseling Theories
- DAAC 2341 - Counseling of Substance Use Disorders
- COSC 1301 - Introduction to Computing

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- DAAC 2330 - Multicultural Counseling
- ENGL 1302 - Composition II
- SCWK 2305 - Special Problems of Youth
- SCWK 1303 - Ethics for Social Service Professionals

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- DAAC 2307 - Family Intervent-Substance Use Disorder
- PSYT 2345 - Principles Behavior Mgt & Modification
- SOCW 2361 - Introduction to Social Work

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- DAAC 2366 - Practicum: Substance Abuse/Addiction
- DAAC 2343 - Current Issues
- MATH 1342 - Elementary Statistical Methods
- PSYT 1313 - Psychology of Personal Adjustment

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Individuals seeking a Licensed Chemical Dependency Counselor license from the State of Texas must meet all requirements set forth by legislation: 1) minimum of an associate degree, 2) 300 clock hours of practicum, 3) 4,000 clock hours of work experience in a Clinical Training Institute agency approved by the Texas Department of State Health Services, and 4) undergo a criminal background history check.

This degree meets all educational requirements for preparation for the state license examination for the LCDC.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Substance Abuse Counseling

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Substance Abuse Counseling

Program Code
MENT.T003.UG

Program Type
Level 1 Certificate

CIP
51.1501

Learn More
Learn more about Substance Abuse Counseling

Credential Map
Mental Health Substance Abuse Counseling.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- DAAC 1304 - Pharmacology of Substance Use Disorders
- DAAC 2341 - Counseling of Substance Use Disorders
- PSYT 2339 - Counseling Theories
- SCWK 1303 - Ethics for Social Service Professionals

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- PSYT 2345 - Principles Behavior Mgt & Modification
- DAAC 2307 - Family Intervent-Substance Use Disorder
- DAAC 2343 - Current Issues
- DAAC 2366 - Practicum: Substance Abuse/Addiction

- Apply for Graduation

Total Semester Hours
24

After successful completion of the above curriculum, a student is eligible to apply for a Registered Counselor Intern designation through the Texas Department of State Health Services. Other licensing requirements must be met as set forth by legislation, including passing a criminal background history check, a minimum of an associate degree in Mental Health, or an equivalent degree as determined by the Texas Department of State Health Services.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Social Work

General

TCC Pathway
Human & Public Service

Location(s)
Northeast

Program Name
Social Work

Program Code
MENT.T004.UG

Program Type
Level 1 Certificate

CIP
51.1502

Learn More
Learn more about Social Work

Credential Map
Mental Health and Human Services.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SOCW 2361 - Introduction to Social Work
- SCWK 2305 - Special Problems of Youth
- SCWK 1303 - Ethics for Social Service Professionals

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Social Work Directed Elective (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SOCW 2362 - Social Welfare: Legislation/Program/Srv
- DAAC 2330 - Multicultural Counseling
- SOCI 1306 - Social Problems
- GERS 1301 - Introduction to Gerontology
- GERS 1342 - Aging and Mental Health
- SOCW 2389 - Academic Cooperative

- Apply for Graduation

Total Semester Hours
30

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Nondestructive Inspection, Testing and Evaluation, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Nondestructive Inspection, Testing and Evaluation, AAS

Program Code
NDTE.D002.UG

Program Type
Associate of Applied Science

CIP
15.0702

Learn More
Learn more about Nondestructive Inspection, Testing and Evaluation

Credential Map
Nondestructive Inspection, Testing and Evaluation.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- METL 1301 - Introduction to Metallurgy
- AERO 1291 - AET Airframe/Component Strutral Design
- NDTE 1372 - Intro to NDT/NAS Codes and Standards
- NDTE 1410 - Liquid Penetrant/Magnetic Particle Test
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- NDTE 1405 - Introduction to Ultrasonics
- NDTE 1340 - Electromagnetic Testing
- INMT 1370 - Composite Fundamentals

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- NDTE 2401 - Advanced Ultrasonics

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- NDTE 1371 - Introduction to Radiation Safety
- NDTE 2572 - Advanced Eddy Current
- METL 2371 - Materials and Failure Analysis

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- NDTE 2473 - Industrial Radiography
- NDTE 2474 - Emerging Technologies in NDTE

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science, or Social and Behavioral Sciences (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Nondestructive Testing Technician

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Nondestructive Testing Technician

Program Code
NDTE.T001.UG

Program Type
Level 1 Certificate

CIP
15.0702

Learn More
Learn more about Nondestructive Inspection, Testing and Evaluation

Credential Map
Nondestructive Inspection, Testing and Evaluation.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- NDTE 1372 - Intro to NDT/NAS Codes and Standards
- NDTE 1410 - Liquid Penetrant/Magnetic Particle Test
- NDTE 1405 - Introduction to Ultrasonics

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- NDTE 2401 - Advanced Ultrasonics
- INMT 1370 - Composite Fundamentals
- NDTE 1340 - Electromagnetic Testing

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- NDTE 2572 - Advanced Eddy Current

- Apply for Graduation

Total Semester Hours
26

Radiography Technician

General

TCC Pathway
Business & Industry

Location(s)
Northwest

Program Name
Radiography Technician

Program Code
NDTE.T002.UG

Program Type
Level 1 Certificate

CIP
15.0702

Learn More
Learn more about Nondestructive Inspection, Testing and Evaluation

Credential Map
Nondestructive Inspection, Testing and Evaluation.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- METL 1301 - Introduction to Metallurgy
- AERO 1291 - AET Airframe/Component Strutral Design
- NDTE 2473 - Industrial Radiography

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- NDTE 2474 - Emerging Technologies in NDTE
- METL 2371 - Materials and Failure Analysis
- NDTE 1371 - Introduction to Radiation Safety

- Apply for Graduation

Total Semester Hours
19

Nuclear Medicine Technology, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Nuclear Medicine Technology, AAS

Program Code
NMTT.D001.UG

Program Type
Associate of Applied Science

CIP
51.0905

Learn More
Learn more about Nuclear Medicine Technology

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following courses must be completed prior to applying for admission into the Nuclear Medicine Technology Program.

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- CHEM 1405 - Introductory Chemistry I (Lecture/Lab)
- MATH 1314 - College Algebra

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SCIT 1320 - Physics for Allied Health
- NMTT 1301 - Introduction to Nuclear Medicine
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- NMTT 2301 - Radiochemistry and Radiopharmacy
- NMTT 2209 - Nuclear Medicine Methodology I
- NMTT 1266 - Practicum I Nuclear Medicine Technology

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Social and Behavioral Science (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- NMTT 1309 - Nuclear Medicine Instrumentation
- NMTT 1313 - Nuclear Medicine Physics
- NMTT 1267 - Practicum II Nuclear Medicine Technolog

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- NMTT 2313 - Nuclear Medicine Methodology II
- NMTT 2333 - Positron Emission Tomo & Fushion Tech
- NMTT 2366 - Practicum III Nuclear Medicine Technolo

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- NMTT 2235 - Nuclear Medicine Seminar
- NMTT 2467 - Practicum IV Nuclear Medicine Techn

- Apply for Graduation

Total Semester Hours
60

Selective Admission Criteria:

All applicants to the Nuclear Medicine Technology Program are required to attend an information session before the application deadline. For additional information, refer to the TCC website.

Application Criteria:

- *Hold a TCCD student Colleague number*
- *Must meet with the CTE advisor*
- *Currently have a minimum GPA of 2.5*
- *Successfully complete the HESI A2 entrance exam with a minimum score of 70 in each section, IELTS 6.5 minimum score, or TOEFL iBT test 83 minimum score for ESL Students*

Prior to application, students with international college credits must contact International Student Admissions and Compliance at 817-515-1570 to verify those courses that will transfer to TCCD. Once admitted to the program, students must maintain a minimum grade of "C" (75%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check, both of which must report negative in order to remain in the program. Required immunizations must be completed prior to the beginning of classes.

After satisfactory completion of the above curriculum, the student is eligible to take the national examination to become certified as a Registered Nuclear Medicine Technologist (NM) with the A.R.R.T. and/or the N.M.T.C.B.

The Tarrant County College Nuclear Medicine Technology program is accredited by the Joint Review Committee on Educational Programs, 2000 N. Danforth Rd, Suite 130 #203, Edmond, OK, 73003, Tel: 405-285-0546, Fax: 405-285-0579, Email: jrcnmt@coxinet.net.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Nursing, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Nursing, AAS

Program Code
NURS.D003.UG

Program Type
Associate of Applied Science

CIP
51.3801

Learn More
Learn more about Nursing

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following science courses must be completed prior to applying for admission to the Nursing Program:

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- BIOL 2420 - Microbiology Non-Science Maj (Lec/Lab)
  OR BIOL 2421 - Microbiology for Science Maj (lec/lab)

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RNSG 1413 - Foundations for Nursing Practice
- RNSG 1360 - Clinical - Registered Nursing/Nurse
- RNSG 1105 - Nursing Skills I
- PSYC 2301 - General Psychology
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RNSG 1441 - Common Concepts of Adult Health
- RNSG 1461 - Clinical Registered Nursing/Nurse
- PSYC 2314 - Life Span Growth and Development
- RNSG 1201 - Pharmacology

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RNSG 2213 - Mental Health Nursing
- RNSG 2163 - Clinical-Registered Nursing/Reg Nurse

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RNSG 2208 - Maternal/Newborn Nursing/Women's Health
- RNSG 2260 - Clinical-Registered Nursing/Reg Nurse
- RNSG 2201 - Care of Children and Families
- RNSG 2161 - Clinical Registered Nursing/Reg Nurse

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RNSG 1443 - Complex Concepts of Adult Health
- RNSG 2461 - Clinical-Register Nursing/Register Nurs

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Credit-By-Examination may be earned for RNSG 1413, RNSG 1360, and RNSG 1105 by LVNs, Military Medics, and Paramedics. Summer entry. Complete details of the Fast Track Option are provided on the TCC website. The Fast Track Option course sequence in the first term may vary for the spring entry.

Fall/Spring entry generic.

All semesters are consecutive.

Students are strongly urged to complete all general education requirements prior to entering the program.

Testing fees are assessed for all nursing theory courses.

Selective Admission Criteria:

Requirements for Applicants:

- *All Biology courses (BIOL 2401, BIOL 2402, and BIOL 2420) must have been completed prior to application to the Nursing Program.*
- *Completion of all courses required for the program with a grade of "C" or better.*
- *Completion of the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) is required if their native/first language is not English.*

Admission Criteria:

- *A grade of C or better on the required courses: BIOL 2401, BIOL 2402, and BIOL 2420.*
- *HESI A2 (75% or higher on Reading, Vocabulary, Grammar, Anatomy & Physiology, and Math) score on a standardized admission test.*

Complete details of the nursing admissions process can be found on the TCC website.

Additional Requirements for Transfer Student Applicants:

- *Admission to Tarrant County College*
- *Letter of good standing from the dean or director of the previously attended nursing program*
- *Copy of official transcript(s)*
- *Completion of tests for the clinical component of the program (DFWHC Orientation, HIPAA, TCC Nursing Student Handbook Examination, Dosage Calculation Examination) with passing scores*

Some transfer students may be required to audit RNSG 1105 - Nursing Skills I.

Requirements for Students Admitted to the Nursing Program:

- *Negative drug screen*
- *Background checks*
- *Proof of medical insurance*
- *Current healthcare provider CPR course (approved by the American Heart Association)*
- *Social Security card*
- *Participation in Nursing Program Orientation*
- *Current immunizations for the duration of the program*
- *Completion of all courses required for the program with a grade of "C" or better*
- *Completion of English Proficiency, if required*

Applicants with a history of criminal charges, mental illness, or chemical dependency must request a Declaratory Order from the Texas Board of Nursing to determine eligibility for licensure prior to admission to the Nursing Program.

Any student admitted to the Nursing Program must meet the legal requirements for licensure by the Texas Board of Nursing. Upon successful completion of the program, the student is eligible to take the National Council Licensing Examination (NCLEX) for registered nurses.

The TCC Nursing Program is approved by the Texas Board of Nursing, https://www.bon.texas.gov, and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, www.acenursing.org.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Vocational Nursing

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Vocational Nursing

Program Code
NURS.T001.UG

Program Type
Level 2 Certificate

CIP
51.3901

Learn More
Learn more about Vocational Nursing

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

General Education Courses

Fulfill ALL of the following requirements:

The following general education course must be completed prior to applying to the LVN program

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)

AND

The following general education course must be completed prior to the second semester of the LVN program

Complete ALL of the following Courses:
- PSYC 2301 - General Psychology

Students are strongly urged to complete this course prior to entering the program.

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- VNSG 1304 - Foundations of Nursing
- VNSG 1323 - Basic Nursing Skills
- VNSG 1360 - Clinical-Licenses Practical/Voc Nurse
- VNSG 1116 - Nutrition

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- VNSG 1429 - Medical-Surgical Nursing I
- VNSG 1461 - Clinical-Licensed Practical/Vocational
- VNSG 1331 - Pharmacology
- VNSG 1301 - Mental Health and Mental Illness

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- VNSG 1432 - Medical-Surgical Nursing II
- VNSG 1234 - Pediatrics
- VNSG 1230 - Maternal-Neonatal Nursing
- VNSG 1219 - Leadership and Professional Development
- VNSG 1462 - Clinical-Licensed Practical/Vocational

- Apply for Graduation

Total Semester Hours
45

Credit Examination may be earned for VNSG 1360 by CNAs. Complete details of the CNA to LVN option are provided on the TCC website.

Special Admission Criteria:

Requirements for Applicants:

- *The Biology class (BIOL 2401) must have been completed prior to application to the VN Program.*
- *Completion of all courses required for the program with a grade of C or better.*
- *Completion of the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) is required if their native/first language is not English.*

For complete details regarding the VN program, refer to the TCC website.

Admission Criteria:

- *A grade of C or better on the required course: BIOL 2401.*
- *HESI A2 (75% or higher on Reading, Vocabulary, Grammar, Anatomy and Physiology, and Math) score on a standardized admission test.*

Additional Requirements for Transfer Student Applicants:

- *Admission to Tarrant County College.*
- *Letter of good standing from the Dean or Director of the previously attended nursing program.*
- *Copy of official transcript(s).*
- *Completion of tests for the clinical component of the program (DFWHC Orientation, HIPAA, TCC Nursing Student Handbook Examination, Dosage Calculation Examination) with passing scores.*

Admitted to the VN Nursing Program:

- *Negative drug screen*
- *Background checks*
- *Proof of medical insurance*
- *Current healthcare provider CPR course (approved by the American Heart Association)*
- *Social Security card*
- *Participation in a VN Program Orientation*
- *Current immunizations for the duration of the program*

- *Completion of all courses required for the program with a grade of C or better*
- *Completion of English Proficiency, if required*

Applicants with a history of criminal charges, mental illness, or chemical dependency must request a Declaratory Order from the Texas Board of Nursing to determine eligibility for licensure prior to admission to the Vocational Nursing Program.

Any student admitted to the Vocational Nursing Program must meet the legal requirements for licensure by the Texas Board of Nursing. Upon successful completion of the program, the student is eligible to take the National Council Licensing Examination (NCLEX).

CNA to VN Option:

The CNA to VN Option is a program for certified nursing assistants.

Eligible requirements for the option include:

- *Acceptance into the VN program*
- *Current certification as a CNA*

Credit-by-Exam:

Credit for the following courses can be earned through the credit-by-exam process:

- *VNSG 1360 - Clinical-Licensed Practical/Vocational Nurse Training*

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Office Technology Professional, AAS

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Office Technology Professional, AAS

Program Code
OFTP.D002.UG

Program Type
Associate of Applied Science

CIP
52.0407

Online Availability
This program can be completed fully online.

Learn More
Learn more about Office Technology Professional

Credential Map
Office Technology Professional.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- POFT 1329 - Beginning Keyboarding
- ACNT 1303 - Introduction to Accounting I
- POFT 1301 - Business English

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- POFI 2401 - Word Processing
- POFT 1409 - Administrative Office Procedures I
- ACNT 1311 - Introduction to Computerized Accounting

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- POFI 1449 - Spreadsheets

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITSW 1407 - Introduction to Database
- ENGL 1301 - Composition I
- POFT 1319 - Records and Information Management

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Office Technology Professional Elective (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BUSI 2301 - Business Law
  OR BMGT 1341 - Business Ethics

- POFT 2312 - Business Correspondence & Communication

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Office Technology Professional Elective (3 Semester Credit Hours)
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Credit by Examination Placement Test is available for POFT 1329.

Credit may not be earned for both BCIS 1305 and COSC 1301.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Administrative Specialist

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Administrative Specialist

Program Code
OFTP.T005.UG

Program Type
Level 1 Certificate

CIP
52.0407

Online Availability
This program can be completed fully online.

Learn More
Learn more about Office Technology Professional

Credential Map
Office Technology Professional.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- POFT 1329 - Beginning Keyboarding
- ACNT 1303 - Introduction to Accounting I
- POFT 1301 - Business English

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- ACNT 1311 - Introduction to Computerized Accounting
- POFI 2401 - Word Processing
- POFT 1319 - Records and Information Management

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- POFI 1449 - Spreadsheets
- POFT 1409 - Administrative Office Procedures I

- Apply for Graduation

Total Semester Hours
27

Credit-by-Examination Placement Test is available for POFT 1329

Learning Outcomes

Applications Specialist

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Applications Specialist

Program Code
OFTP.T006.UG

Program Type
Level 1 Certificate

CIP
52.0407

Online Availability
This program can be completed fully online.

Learn More
Learn more about Office Technology Professional

Credential Map
Office Technology Professional.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- POFT 1329 - Beginning Keyboarding
- POFT 1301 - Business English

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- POFI 2401 - Word Processing
- POFI 2431 - Desktop Publishing

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- POFI 1449 - Spreadsheets
- ITSW 1407 - Introduction to Database

- Apply for Graduation

Total Semester Hours
22

Credit by Examination Placement Test is available for POFT 1329.

Learning Outcomes

Office Technology Specialist

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Office Technology Specialist

Program Code
OFTP.T007.UG

Program Type
Level 2 Certificate

CIP
52.0407

Online Availability
This program can be completed fully online.

Learn More
Learn more about Office Technology Professional

Credential Map
Office Technology Professional.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- POFT 1329 - Beginning Keyboarding
- POFT 1301 - Business English
- ACNT 1303 - Introduction to Accounting I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- POFI 2401 - Word Processing
- ACNT 1311 - Introduction to Computerized Accounting
- ENGL 1301 - Composition I
- POFT 1409 - Administrative Office Procedures I

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- POFI 1449 - Spreadsheets

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ITSW 1407 - Introduction to Database
- POFT 1319 - Records and Information Management

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Office Technology Professional Elective (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
44

Credit-by-Examination Placement Test is available for POFT 1329

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Office Assistant

General

TCC Pathway
Business & Industry

Location(s)
Connect

Program Name
Office Assistant

Program Code
OFTP.T008.UG

Program Type
Occupational Skills Award

CIP
52.0408

Online Availability
This program can be completed fully online.

Learn More
Learn more about Office Technology Professional

Credential Map
Office Technology Professional.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- ACNT 1303 - Introduction to Accounting I
- POFI 2401 - Word Processing
  OR POFI 1449 - Spreadsheets
- POFT 1329 - Beginning Keyboarding

- Apply for Graduation

Total Semester Hours
10

Credit-by-Examination Placement Test is available for POFT 1329

Learning Outcomes

Ophthalmic Technician, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Ophthalmic Technician, AAS

Program Code
OPTS.D001.UG

Program Type
Associate of Applied Science

CIP
51.1803

Learn More
Learn more about Ophthalmic Technician

Credential Map
Ophthalmic Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- OPTS 1311 - The Visual System
- OPTS 2341 - Ophthalmic Techniques
- ENGL 1301 - Composition I
- MATH 1314 - College Algebra

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- OPTS 1319 - Vision Care Office Procedures
- OPTS 1315 - Basic Contact Lenses
- OPTS 1366 - Clinic Practicum I

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- OPTS 1266 - Clinic Practicum II
- OPTS 2345 - Advanced Ophthalmic Techniques

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- OPTS 1305 - Geometric Optics
- OPTS 2366 - Clinic Practicum III
- OPTS 1492 - Ophthalmic Seminar
- OPTS 2335 - Advanced Contact Lenses

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- HUMA 1301 - Introduction to Humanities I
- OPTS 2350 - Ophthalmic Surgical Techniques
- OPTS 2367 - Clinic Practicum IV
- PSYC 2301 - General Psychology

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Ophthalmic Assistant I

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Ophthalmic Assistant I

Program Code
OPTS.T001.UG

Program Type
Level 1 Certificate

CIP
51.1803

Learn More
Learn more about Ophthalmic Technician

Credential Map
Ophthalmic Technician.pdf

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- OPTS 1311 - The Visual System
- OPTS 2341 - Ophthalmic Techniques

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- OPTS 1319 - Vision Care Office Procedures
- OPTS 1315 - Basic Contact Lenses

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- OPTS 2345 - Advanced Ophthalmic Techniques

- Apply for Graduation

Total Semester Hours
15

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Ophthalmic Assistant II

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Ophthalmic Assistant II

Program Code
OPTS.T002.UG

Program Type
Level 2 Certificate

CIP
51.1803

Learn More
Learn more about Ophthalmic Technician

Credential Map
Ophthalmic Technician.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- OPTS 1311 - The Visual System
- OPTS 2341 - Ophthalmic Techniques
- ENGL 1301 - Composition I
- MATH 1314 - College Algebra

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- OPTS 1319 - Vision Care Office Procedures
- OPTS 1315 - Basic Contact Lenses
- OPTS 1366 - Clinic Practicum I

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- OPTS 1266 - Clinic Practicum II
- OPTS 2345 - Advanced Ophthalmic Techniques

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Total Semester Hours
32

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Pipe Fitter, AAS

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Pipe Fitter, AAS

Program Code
PFPB.D001.UG

Program Type
Associate of Applied Science

CIP
46.0502

Learn More
Learn more about Pipefitting

Credential Map
Pipe Fitter.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PFPB 1450 - Plumbing and Pipefitting Equip & Safety
- TECM 1301 - Industrial Mathematics
- WLDG 1421 - Welding Fundamentals

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Speech and Communication Skills (3 Semester Credit Hours)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PFPB 1305 - Basic Blueprint Reading for Pipefitters
- PFPB 1408 - Basic Pipefitting Skills
- MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences
  OR MATH 1332 - Contemporary Math (Quantitative Reason)
- ENGL 1301 - Composition I

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PFPB 2408 - Piping Standards and Materials
- DFTG 1305 - Introduction to Technical Drawing
- KINE 1164 - Intro to Physical Fitness & Wellness
- COSC 1301 - Introduction to Computing
  OR BCIS 1305 - Business Computer Applications
- PFPB 2407 - Pipe Fabrication and Installation I

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PFPB 2441 - Pipe Fabrication and Installation II
- PFPB 2432 - Adv Pipefitting Standards/Spec/Install
- PFPB 2433 - Pipefitt: Adv Fabrication/Installation

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Pipefitting-Basic

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Pipefitting-Basic

Program Code
PFPB.T001.UG

Program Type
Level 1 Certificate

CIP
46.0502

Learn More
Learn more about Pipefitting

Credential Map
Pipe Fitter.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- PFPB 1450 - Plumbing and Pipefitting Equip & Safety
- TECM 1301 - Industrial Mathematics
- WLDG 1421 - Welding Fundamentals

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- PFPB 1305 - Basic Blueprint Reading for Pipefitters
- PFPB 1408 - Basic Pipefitting Skills

- Apply for Graduation

Total Semester Hours
18

Learning Outcomes

Pipefitting-Advanced

General

TCC Pathway
Business & Industry

Location(s)
South

Program Name
Pipefitting-Advanced

Program Code
PFPB.T002.UG

Program Type
Level 1 Certificate

CIP
46.0502

Learn More
Learn more about Pipefitting

Credential Map
Pipe Fitter.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- PFPB 2408 - Piping Standards and Materials
- PFPB 2407 - Pipe Fabrication and Installation I
- PFPB 2441 - Pipe Fabrication and Installation II

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- PFPB 2432 - Adv Pipefitting Standards/Spec/Install
- PFPB 2433 - Pipefitt: Adv Fabrication/Installation

- Apply for Graduation

Total Semester Hours
20

Learning Outcomes

Patient Care Technician

General

TCC Pathway
Health Science

Location(s)
Trinity River, South

Program Name
Patient Care Technician

Program Code
PTCT.T001.UG

Program Type
Level 1 Certificate

CIP
51.3902

Learn More
Learn more about Patient Care Technician

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- HPRS 1206 - Essentials of Medical Terminology
- HPRS 2201 - Pathophysiology
- HPRS 1304 - Basic Health Professional Skills
- ECRD 1271 - Electrocardiography
- HPRS 2200 - Pharmacology for Health Professions
- PLAB 1223 - Phlebotomy
- NUPC 1260 - Clinical-Patient Care Assistant

- Apply for Graduation

Total Semester Hours
15

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Physical Therapist Assistant, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Physical Therapist Assistant, AAS

Program Code
PTHA.D001.UG

Program Type
Associate of Applied Science

CIP
51.0806

Learn More
Learn more about Physical Therapist Assistant

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Fall Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- HPRS 2200 - Pharmacology for Health Professions
- PTHA 1201 - The Profession of Physical Therapy
- PTHA 1321 - Pathophysiology for the PTA
- PTHA 1413 - Functional Anatomy

Spring Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- PSYC 2301 - General Psychology
- PTHA 1405 - Basic Patient Care Skills
- PTHA 1431 - Biophysical Agents
- PTHA 1225 - Communication in Health Care

First Summer Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PTHA 2201 - Essentials of Data Collection
- PSYC 2314 - Life Span Growth and Development
  OR PSYC 2308 - Child Psychology

Second Summer Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- ENGL 1301 - Composition I
- PTHA 2431 - Management of Neurological Disorders

Second Year
Type
Completion Requirement

Fall Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PTHA 2435 - Rehabilitation Techniques
- PTHA 2409 - Therapeutic Exercise
- PTHA 2360 - Clinical - Physical Therapist Asstant

Spring Term

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- PTHA 2239 - Professional Issues
- PTHA 2361 - Clinical - Physical Therapist Asstant
- PTHA 2363 - Clinical - Physical Therapist Assistant

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
66

Selective Admission Criteria:

All applicants to the Physical Therapist Assistant Program are required to attend an information session before the application deadline. Complete details of the Physical Therapist Assistant program admission process may be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *Currently have a minimum GPA of 2.5*
- *Successfully complete the HESI A2 Entrance Exam with a minimum score of 70 in each section*
- *IELTS 6.5 minimum score or TOEFL iBT test with 83 as the minimum score for ESL students*

This program is a selective admission offering.

Prior to application, students with international college credits must contact International Student Admissions and Compliance at 817-515-1570 to verify those courses that will transfer to TCCD.

Once admitted to the program, students must complete and earn a minimum grade of "C" (75%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and a criminal background check prior to the start of the program, both of which must report negative in order to remain in the program. Required immunizations must be completed prior to the beginning of classes.

After successful completion of the above curriculum, the student is eligible to take the national examination to become certified as a Registered Physical Therapy Assistant (PTA).

The program is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), Department of Accreditation, APTA, 1111 N. Fairfax Street, Alexandria, Virginia 22314.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Radiologic Technology, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Radiologic Technology, AAS

Program Code
RADT.D001.UG

Program Type
Associate of Applied Science

CIP
51.0911

Learn More
Learn more about Radiologic Technology

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following courses are prerequisites for admission to the Radiologic Technology Program.

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)

First Year
Type
Completion Requirement

Summer Term
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RADR 1201 - Introduction to Radiography
- RADR 1203 - Patient Care
- RADR 1311 - Basic Radiographic Procedures
- HPRS 1206 - Essentials of Medical Terminology

Fall Term
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RADR 1266 - Practicum Radiologic Technology
- RADR 1313 - Principles of Radiographic Imaging I
- RADR 2301 - Intermediate Radiographic Procedures
- ENGL 1301 - Composition I

Spring Term
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RADR 1267 - Practicum Radiologic Technology
- RADR 2305 - Principles of Radiographic Imaging II
- RADR 2331 - Advanced Radiographic Procedures

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Information Technology Elective (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Summer Term
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Course

Complete ALL of the following Courses:
- RADR 1366 - Practicum Radiologic Technology

Fall Term
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RADR 2209 - Radiographic Imaging Equipment
- RADR 2213 - Radiation Biology and Protection
- RADR 2366 - Practicum-Radiologic Tech/Sci Radiograp
- HPRS 2201 - Pathophysiology

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Spring Term
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RADR 2233 - Advanced Medical Imaging
- RADR 2235 - Radiologic Technology Seminar
- RADR 2367 - Practicum - Radiologic Technology
- PSYC 2301 - General Psychology
  OR PSYC 2315 - Psychology of Adjustment

- Apply for Graduation

Total Semester Hours
64

Selective Admission Criteria:

All applicants to the Radiologic Technology Program are required to attend an information session before the application deadline. Complete details of the Radiologic Technology program admissions process may be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *Currently have a minimum GPA of 2.5*
- *Successfully complete the HESI A2 Entrance Exam with a minimum score of 70 in each section*
- *IELTS 6.5 minimum score or TOEFL iBT test 83 minimum score for ESL students*

Prior to application, students with international college credits must contact International Student Admissions and Compliance at 817-515-1570 to verify those courses that will transfer to TCCD.

Once admitted to the program, students must maintain a minimum grade of "C" (75%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check, both of which must report negative in order to remain in the program. Required immunizations must be completed prior to the beginning of classes.

After satisfactory completion of the above curriculum, the student is eligible to take the national examination to become certified as a Registered Radiologic Technologist with the American Registry of Radiologic Technologists (ARRT). Graduates may also choose to sit for additional registries related to the field or radiography.

The Tarrant County College Radiology Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Computed Tomography Advanced

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Computed Tomography Advanced

Program Code
RADT.T003.UG

Program Type
Advanced Technical Certificate

CIP
51.0911

Learn More
Learn more about Computed Tomography

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- CTMT 2336 - Computed Tomography Equipment/Methodolo
- CTMT 2460 - Clinical-Radiologic Technology/Science
- CTMT 2461 - Clinical-Radiologic Technology/Science
- RADR 2340 - Sectional Anatomy for Medical Imaging
- CTMT 1271 - Computed Tomography (CT) Review

- Apply for Graduation

Total Semester Hours
16

Selective Admission Criteria:

Must be a graduate of an accredited two-year program in Medical Radiography (Ionizing Radiation), Radiation Therapy, and/or Nuclear Medicine; must be in good standing and hold a current license with the ARRT or NMTCB; must be registered in Radiography, Radiation Therapy, and/or Nuclear Medicine within two weeks prior to the start of the program.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Magnetic Resonance Imaging Technology Advanced

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Magnetic Resonance Imaging Technology Advanced

Program Code
RADT.T005.UG

Program Type
Advanced Technical Certificate

CIP
51.0911

Learn More
Learn more about Magnetic Resonance Imaging

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MRIT 2330 - Principles of Magnetic Resonance Imaging
- RADR 2340 - Sectional Anatomy for Medical Imaging
- MRIT 2560 - Clinical-Radiologic Tech/Science

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MRIT 2334 - MRI Equipment & Methodology
- MRIT 2355 - Magnetic Resonance Image Physics
- MRIT 2561 - Clinical II-Radiologic Tech/Science

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- MRIT 2462 - Clinical III-Radiologic Tech/Science
- MRIT 1271 - Magnetic Res Imaging - Registry Review

- Apply for Graduation

Total Semester Hours
28

Selective Admission Criteria:

Magnetic Resonance Imaging is a post-associate three-semester certificate program. Additional information for the MRI program may be found on the TCC website.

All applicants must show proof of the following:

- *An overall G.P.A. of 2.5 or higher from an accredited Radiologic Health Science Program.*
- *Be a graduate of a two-year accredited Radiologic Health Science Program in Radiography, Radiation Therapy, Nuclear Medicine, or Sonography.*
- *Have current Texas Department of Health certification and ARRT, NMTCB, or ARDMS certificate.*

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Vascular Interventional Radiography

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Vascular Interventional Radiography

Program Code
RADT.T007.UG

Program Type
Advanced Technical Certificate

CIP
51.0911

Learn More
Learn more about Vascular Interventional Radiography

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- VIRT 1310 - Principles Interventional Radiology I
- VIRT 2340 - Advanced Patient Care & Pathophysiology
- VIRT 2364 - Practicum Vasc Interventional Techn Scie

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- VIRT 1320 - Interventional Radiology Equipment/Meth
- VIRT 2310 - Principles Interventional Radiology II
- VIRT 2365 - Practicum Vasc Interventional Techn Scie

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- VIRT 2264 - Practicum Vascular Intervention Tech Sci
- VIRT 2330 - Adv Vascular Interventional Procedures

- Apply for Graduation

Total Semester Hours
23

Selective Admission Criteria:

Vascular Interventional Radiography Advanced Technical is a post-associate three-semester certificate program.

All applicants must show proof of the following:

- *An overall G.P.A. of 2.5 or higher from an accredited Radiologic Health Science Program.*
- *Be a graduate of a two-year accredited Radiologic Health Science Program in Radiography.*
- *Have current Texas Medical Board and ARRT certificate.*

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Real Estate, AAS

General

TCC Pathway
Business & Industry

Location(s)
Northeast

Program Name
Real Estate, AAS

Program Code
REAL.D001.UG

Program Type
Associate of Applied Science

CIP
52.1501

Learn More
Learn more about Real Estate

Credential Map
Real Estate.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RELE 1406 - Principles of Real Estate
- RELE 1319 - Real Estate Finance
- BUSI 1301 - Business Principles
- ENGL 1301 - Composition I
- SPCH 1311 - Introduction to Speech Communication
  OR SPCH 1315 - Public Speaking
  OR SPCH 1318 - Interpersonal Communication
  OR SPCH 1321 - Business and Professional Communication

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RELE 1307 - Real Estate Investments
- RELE 1300 - Contract Forms and Addenda
- GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)
- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Kinesiology Activity (1 Semester Credit Hour)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required courses

Complete ALL of the following Courses:
- RELE 2301 - Law of Agency
- RELE 1315 - Property Management
  OR BMGT 1327 - Principles of Management
- ECON 2301 - Principles of Macroeconomics
- MRKG 1311 - Principles of Marketing

AND

Complete one course from each option below

Complete ALL of the following Course Sets:
- Life and Physical Sciences (4 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RELE 1303 - Real Estate Appraisal
- RELE 1311 - Law of Contracts
- ACCT 2301 - Principles of Financial Accounting
- BUSI 2301 - Business Law

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Real Estate

General

TCC Pathway
Business & Industry

Location(s)
Northeast

Program Name
Real Estate

Program Code
REAL.T001.UG

Program Type
Level 1 Certificate

CIP
52.1501

Learn More
Learn more about Real Estate

Credential Map
Real Estate.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- RELE 1406 - Principles of Real Estate
- RELE 1311 - Law of Contracts
- RELE 1300 - Contract Forms and Addenda
- RELE 2301 - Law of Agency
- RELE 1319 - Real Estate Finance

- Apply for Graduation

Total Semester Hours
16

The curriculum for this program is specifically designed to satisfy the State of Texas education requirements to obtain a Texas Real Estate License and prepare the student to successfully complete the state examination for licensure.

A minimum of 9 semester hours of RELE courses must be completed in residence at TCC.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Respiratory Care, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Respiratory Care, AAS

Program Code
RESP.D001.UG

Program Type
Associate of Applied Science

CIP
51.0908

Learn More
Learn more about Respiratory Care

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following science courses are prerequisites to selection for the Respiratory Care Program. A grade of C or better is required.

Complete ALL of the following Courses:

- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- BIOL 2420 - Microbiology Non-Science Maj (Lec/Lab)

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- RSPT 1101 - Introduction to Respiratory Care
- RSPT 1166 - Practicum-Respiratory Care Therapy(ist)
- RSPT 1310 - Respiratory Care Procedures I
- RSPT 1113 - Respiratory Care Pharmacology
- RSPT 1240 - Adv Cardiopulmonary Anatomy/Physiology
- HPRS 1206 - Essentials of Medical Terminology
- HPRS 2200 - Pharmacology for Health Professions

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- HPRS 2201 - Pathophysiology
- RSPT 1266 - Practicum-Respiratory Care Therapy(ist)
- RSPT 1311 - Respiratory Care Procedures II
- RSPT 2210 - Cardiopulmonary Disease
- ENGL 1301 - Composition I

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- RSPT 2139 - Advanced Cardiac Life Support
- RSPT 1267 - Practicum-Respiratory Therapy
- RSPT 2414 - Mechanical Ventilation

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- RSPT 2266 - Practicum-Respiratory Care Therapy(ist)
- RSPT 2425 - Cardiopulmonary Diagnostics
- HPRS 2172 - Health Care Communications

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Social and Behavioral Science (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- RSPT 1141 - Respiratory Home Care/Rehabilitation
- RSPT 2131 - Simulations in RSPT Care
- RSPT 2233 - Respiratory Care Case Management
- RSPT 2147 - Specialties in Respiratory Care
- RSPT 2267 - Practicum-Respiratory Therapy
- RSPT 2353 - Neonatal/Pediatric Cardiopulmonary Care

- Apply for Graduation

Total Semester Hours
66

Selective Admission Criteria:

All applicants to the Respiratory Care Program are required to attend an information session before the application deadline. Complete details of the Respiratory Care program admissions process may be found on the TCC website.

Application Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *Currently have a minimum GPA of 2.5*
- *Successfully complete the HESI A2 Entrance Exam with a minimum score of 70 in each section*
- *IELTS 6.5 minimum score or TOEFL iBT test with 83 as a minimum score for ESL students*

Prior to application, students with international college credits must contact International Student Admissions and Compliance at 817-515-1570.

Once admitted to the program, students must maintain a minimum grade of "C" (75%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check, both of which must report negative in order to remain in the program. Required immunizations must be completed prior to the beginning of classes.

After successful completion of the above curriculum, the student meets the academic requirements to take the necessary examinations to become a registered Respiratory Therapist through the National Board for Respiratory Care and the Texas Department of State Health Services.

The program is accredited by the Commission on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, Texas 76021-4244.

Professional Licensure Disclosure:

The respiratory care program at Tarrant County College (TCC) meets the licensure requirements in all states except Alaska. Licensure requirements have not been determined in Alaska because licensure is not currently regulated. Use the link below to find information on the state or U.S. territory in which you intend to be licensed in order to identify whether TCC's Respiratory Care program meets, does not meet, or if it has not been determined if it meets the educational requirements for licensure. If TCC's program has not determined if it meets the educational requirements for licensure in the state in question, it may satisfy all or a portion of the academic requirements. If that is the case, we recommend contacting the licensing agency directly before beginning the program.

A list of state agencies and contact information can be found at this link: https://www.aarc.org/advocacy/state-society-resources/state-licensure-contacts/

For more information, please contact Don Holt, donald.holt@tccd.edu.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Radio, Television and Film, AAS

General

TCC Pathway
Arts & Humanities

Location(s)
Northeast

Program Name
Radio, Television and Film, AAS

Program Code
RTVF.D001.UG

Program Type
Associate of Applied Science

CIP
10.0202

Learn More
Learn more about Radio, Television and Film

Credential Map
Radio, Television, and Film.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- COMM 2303 - Audio Production
- RTVB 1302 - Computer Applications Media Production
- COMM 1336 - Video Production I
- ENGL 1301 - Composition I
- COMM 1307 - Introduction to Mass Communication
  OR COMM 1335 - Introduction to Electronic Media

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- RTVB 1347 - Audio Production II
- RTVB 1355 - Radio and Television Announcing
- RTVB 1321 - TV/Video Field Production
- RTVB 2330 - Film and Video Editing

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- FLMC 1304 - Lighting for Film or Video
- COMM 2311 - Media Writing
  OR COMM 2339 - Writing for Radio, Television & Film
- FLMC 2333 - Cinematography
- ENGL 1302 - Composition II
- RTVB 2343 - Commercial Recording Techniques

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- FLMC 2334 - Directing for Film or Video
- ARTS 1301 - Art Appreciation
  OR COMM 2366 - Film Appreciation
  OR DRAM 2366 - Film Appreciation
- RTVB 2347 - Electronic Media Business Management
- RTVB 2387 - Internship - Radio and Television

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Government and Political Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Sound Recording Technology

General

TCC Pathway
Arts & Humanities

Location(s)
Northeast

Program Name
Sound Recording Technology

Program Code
RTVF.T002.UG

Program Type
Level 1 Certificate

CIP
10.0202

Learn More
Learn more about Radio, Television and Film

Credential Map
Radio, Television, and Film.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COMM 2303 - Audio Production
- RTVB 1302 - Computer Applications Media Production
- COMM 1336 - Video Production I
- RTVB 2347 - Electronic Media Business Management
- COMM 1307 - Introduction to Mass Communication
  OR COMM 1335 - Introduction to Electronic Media

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- RTVB 1347 - Audio Production II
- RTVB 1355 - Radio and Television Announcing
- RTVB 1321 - TV/Video Field Production
- ENGL 1301 - Composition I
- RTVB 2343 - Commercial Recording Techniques

- Apply for Graduation

Total Semester Hours
30

Multimedia Production

General

TCC Pathway
Arts & Humanities

Location(s)
Northeast

Program Name
Multimedia Production

Program Code
RTVF.T004.UG

Program Type
Level 2 Certificate

CIP
10.0202

Credential Map
Radio, Television, and Film.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- COMM 2303 - Audio Production
- COMM 1336 - Video Production I
- RTVB 2347 - Electronic Media Business Management
- COMM 1307 - Introduction to Mass Communication
  OR COMM 1335 - Introduction to Electronic Media

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- RTVB 1347 - Audio Production II
- RTVB 1355 - Radio and Television Announcing
- RTVB 1321 - TV/Video Field Production
- ENGL 1301 - Composition I
- RTVB 1302 - Computer Applications Media Production

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:

- FLMC 1304 - Lighting for Film or Video
- COMM 2311 - Media Writing
  OR COMM 2339 - Writing for Radio, Television & Film
- FLMC 2333 - Cinematography
- FLMC 2334 - Directing for Film or Video

- Apply for Graduation

Total Semester Hours
39

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Sign Language Interpreting, AAS

General

TCC Pathway
Arts & Humanities

Location(s)
Trinity River

Program Name
Sign Language Interpreting, AAS

Program Code
SIGN.D003.UG

Program Type
Associate of Applied Science

CIP
16.1603

Learn More
Learn more about Sign Language Interpreting

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following courses are prerequisites for admission into American Sign Language (ASL) III.

Complete ALL of the following Courses:
- SGNL 1401 - Beginning American Sign Language I
- SGNL 1402 - Beginning American Sign Language II

First Year
Type
Completion Requirement

Term I
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SGNL 2301 - Intermediate American Sign Language I
- SLNG 1347 - Deaf Culture
- ENGL 1301 - Composition I
- SPCH 1311 - Introduction to Speech Communication
- SLNG 1215 - Visual/Gestural Communication

Term II
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SGNL 2302 - Intermediate American Sign Language II
- SLNG 2301 - Interpreting I
- SLNG 1321 - Intro To The Interpreting Profession
- SLNG 1211 - Fingerspelling and Numbers
- SOCI 1301 - Introduction to Sociology

Term III
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SLNG 2302 - Interpreting II
- SLNG 1207 - Intra-lingual Skills Development Interp

Second Year
Type
Completion Requirement

Term IV
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SLNG 2431 - Interpreting III
- SLNG 1350 - Sign-to-Voice
- SLNG 2288 - Internship-Sign Language Interpretation

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Term V
- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:
- SLNG 2436 - Interpreting IV
- SLNG 2267 - Practicum II
- SLNG 2303 - Transliterating

AND

Complete one course from the option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
65

Selective Admission Criteria:

A selection committee reviews applications and selects applicants who best meet the following criteria:

- *Prior to admission to Interpreting II, students must have successfully completed ASL I, II, III, and IV, as well as Composition I, with a GPA of 3.0.*
- *Students must demonstrate language fluency and proficiency in both English and American Sign Language.*
- *Recommendations by American Sign Language instructors and/or Deaf Community members will be required.*

Students who are selected for admission into interpreting specialized courses must complete and earn a minimum grade of "C" for each specialized course and Composition I.

After satisfactory completion of specialized courses in the Sign Language Interpreting Program, the student is prepared to take the state basic certification exam administered by the Board of Evaluators of Interpreters for the Deaf

Students seeking certification through the Board of Evaluators of Interpreters for the Deaf must meet the following requirements set forth by the Texas Department of Assistive and Rehabilitative Services:

1) Pass a criminal background check.
2) Complete 30 hours of college credit to take the Test of English Proficiency; and
3) Complete a minimum of 60 hours of college credit to take the Basic performance test.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Basic American Sign Language Acquisition

General

TCC Pathway
Arts & Humanities

Location(s)
Trinity River

Program Name
Basic American Sign Language Acquisition

Program Code
SIGN.T002.UG

Program Type
Level 1 Certificate

CIP
16.1603

Learn More
Learn more about Sign Language Interpreting

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

First Summer Term
- Meet with your Career Advisor

Complete ALL of the following Courses:
- SGNL 1401 - Beginning American Sign Language I

Second Summer Term
- Meet with your Career Advisor

Complete ALL of the following Courses:
- SGNL 1402 - Beginning American Sign Language II

Fall Term
- Meet with your Career Advisor

Complete ALL of the following Courses:
- SGNL 2301 - Intermediate American Sign Language I
- SLNG 1215 - Visual/Gestural Communication
- ENGL 1301 - Composition I

- Apply for Graduation

Total Semester Hours
16

Learning Outcomes

Conversational ASL for Healthcare Workers Certificate

General

TCC Pathway
Arts & Humanities

Location(s)
Trinity River

Program Name
Conversational ASL for Healthcare Workers Certificate

Program Code
SIGN.T005.UG

Program Type
Occupational Skills Award

CIP
16.1603

Learn More
Learn more about Sign Language Interpreting

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- SGNL 1401 - Beginning American Sign Language I
- SLNG 1347 - Deaf Culture

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- SLNG 1202 - Conversational Sign Language Wkplace II
- SGNL 1402 - Beginning American Sign Language II

- Apply for Graduation

Total Semester Hours
13

Learning Outcomes

Sign Language Communicator

General

TCC Pathway
Arts & Humanities

Location(s)
Trinity River

Program Name
Sign Language Communicator

Program Code
SIGN.T007.UG

Program Type
Level 2 Certificate

CIP
16.1603

Learn More
Learn more about Sign Language Interpreting

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following courses are prerequisites for admission into American Sign Language (ASL) III.

Complete ALL of the following Courses:
- SGNL 1401 - Beginning American Sign Language I
- SGNL 1402 - Beginning American Sign Language II

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- SGNL 2301 - Intermediate American Sign Language I
- SLNG 1347 - Deaf Culture
- SLNG 1215 - Visual/Gestural Communication
- ENGL 1301 - Composition I

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- SGNL 2302 - Intermediate American Sign Language II
- SLNG 1211 - Fingerspelling and Numbers
- SLNG 1321 - Intro To The Interpreting Profession
- SPCH 1311 - Introduction to Speech Communication

- Apply for Graduation

Total Semester Hours
30

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Microelectronics Nanomanufacturing, AAS

General

TCC Pathway
STEM

Location(s)
South

Program Name
Microelectronics Nanomanufacturing, AAS

Program Code
SMTT.D001.UG

Program Type
Associate of Applied Science

CIP
15.0616

Learn More
Learn more about Microelectronics Nanomanufacturing

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- SMFT 1211 - Vacuum Principles
- CETT 1403 - DC Circuits
- CETT 1449 - Digital Systems
- MATH 1314 - College Algebra
  OR MATH 1332 - Contemporary Math (Quantitative Reason)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CHEM 1405 - Introductory Chemistry I (Lecture/Lab)
- CETT 1405 - AC Circuits
- SMFT 2335 - Vacuum Technology

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Complete one course from each option below

Complete ALL of the following Course Sets:

- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- QCTC 1341 - Statistical Process Control
- SMFT 1343 - Semiconductor Manufacturing Technology
- SMFT 2450 - Vacuum Thin Films
- RBTC 1401 - Programmable Logic Controllers
- CETT 1441 - Solid State Circuits

Term V

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair
- ENGL 2311 - Technical and Business Writing

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Social and Behavioral Science (3 Semester Credit Hours)

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Microelectronics Technology

General

TCC Pathway
STEM

Location(s)
South

Program Name
Microelectronics Technology

Program Code
SMTT.T001.UG

Program Type
Level 1 Certificate

CIP
15.0616

Learn More
Learn more about Microelectronics Technology

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CETT 1403 - DC Circuits
- CETT 1449 - Digital Systems
- CETT 1405 - AC Circuits

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- CETT 1441 - Solid State Circuits
- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair

- Apply for Graduation

Total Semester Hours
19

Vacuum Technology

General

TCC Pathway
STEM

Location(s)
South

Program Name
Vacuum Technology

Program Code
SMTT.T002.UG

Program Type
Level 1 Certificate

CIP
15.0616

Learn More
Learn more about Vacuum Technology

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- SMFT 1343 - Semiconductor Manufacturing Technology
- SMFT 1211 - Vacuum Principles
- RBTC 1401 - Programmable Logic Controllers

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- SMFT 2335 - Vacuum Technology (Inactive)
- SMFT 2450 - Vacuum Thin Films
- ELMT 2337 - Electronic-Troubleshooting/Serv/Repair

- Apply for Graduation

Total Semester Hours
19

Central Sterile Processing

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Central Sterile Processing

Program Code
SRCS.T001.UG

Program Type
Level 1 Certificate

CIP
51.1012

Learn More
Learn more about Central Sterile Processing

Program Requirements

Financial Aid Statement
This certificate is ineligible for Federal Financial Aid, including Federal Pell Grants. Please visit Student Financial Aid Services for other financial aid options.

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HPRS 1470 - Central Sterile Processing I
- HPRS 1370 - Central Sterile Processing II
- HPRS 1471 - Central Sterile Processing III

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HPRS 1561 - Clinical-Health Services/Allied Health

- Apply for Graduation

Total Semester Hours
16

Selective Admission Criteria:

All applicants to the Central Sterile Processing Program are required to attend an information session before the application deadline. Complete details of the Central Sterile Processing program admissions process may be found on the TCC website.

Applicant Criteria:

- *Hold a TCCD Student Colleague Number*
- *Must meet with the CTE advisor*
- *IELTS 6.5 minimum score or TOEFL iBT test with 83 as a minimum score for ESL students*

Prior to application, students with international college credits must contact the International Student Admissions and Compliance office at 817-515-1570 to verify those courses that will transfer to TCCD.

Once admitted to the program, students must maintain a minimum grade of "C" (75%) in all courses found within the degree plan.

Students who are selected for admission must perform and pass a drug screening and criminal background check, both of which must report negative in order to remain in the program. Required immunizations must be completed prior to the beginning of clinical rotations.

After successful completion of the above curriculum, the student is eligible to take the certification examination to become a Certified Central Sterile Processor.

Learning Outcomes

Surgical Technology, AAS

General

TCC Pathway
Health Science

Location(s)
Trinity River

Program Name
Surgical Technology, AAS

Program Code
SURG.D001.UG

Program Type
Associate of Applied Science

CIP
51.0909

Learn More
Learn more about Surgical Technology

Program Requirements

Simple Requisites

Subplan

Prerequisites
Type
Completion Requirement

The following courses must be completed prior to applying for admission into the Surgical Technology Program.

Complete ALL of the following Courses:
- BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)
- BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)
- BIOL 2420 - Microbiology Non-Science Maj (Lec/Lab)
- HPRS 1206 - Essentials of Medical Terminology

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:
- SRGT 1366 - Practicum Surgical Technology
- SPCH 1311 - Introduction to Speech Communication
- SRGT 1405 - Introduction to Surgical Technology
- SRGT 1409 - Fund Perioperative Concepts/Techniques

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:
- SRGT 1266 - Practicum Surgical Technology
- SRGT 1441 - Surgical Procedures I
- PSYC 2301 - General Psychology

Complete one course from each option below

Complete ALL of the following Course Sets:
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Complete ALL of the following Courses:
- HPRS 2201 - Pathophysiology
- SRGT 1442 - Surgical Procedures II
- SRGT 1367 - Practicum - Surgical Technologist
- HPRS 1202 - Wellness and Health Promotion

Term IV

- Meet with your Career Advisor

Complete ALL of the following Courses:
- SRGT 2466 - Practicum Surgical Technology
- SRGT 2230 - Professional Readiness
- ENGL 1301 - Composition I

- Apply for Graduation

Total Semester Hours
60

Selective Admission Criteria:

This program is a selective admission offering. Application information may be found on the TCC website.

- *All applicants to the Surgical Technology Program must attend an information session before the application deadline.*
- *Students who are selected for admission must undergo screening for substances of abuse and a criminal background check prior to the start of clinical rotations.*
- *International students must contact the International Student Admissions and Compliance office at 817-515-1570.*
- *Once admitted to the program, students must complete and earn a minimum grade of C in each specialized course. Most/all of the specialized courses are taught only during the day.*
- *After successful completion of the above curriculum, the student is eligible to take the certification examination to become a Certified Surgical Technologist through the Association of Surgical Technologists.*

The Tarrant County College Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, FL 33756. Phone 727-210-2350.

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Licensing Notice: (HB 1508)
This program prepares a student for an occupational license. However, the student may not be eligible for licensing if they have a prior criminal history. For more details, see House Bill 1508 Licensing Requirements.

Learning Outcomes

Welding Technology, AAS

General

TCC Pathway
Business & Industry

Location(s)
South, Northwest

Program Name
Welding Technology, AAS

Program Code
WELD.D001.UG

Program Type
Associate of Applied Science

CIP
48.0508

Learn More
Learn more about Welding Technology

Credential Map
Welding Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- WLDG 1430 - Intro to Gas Metal Arc Welding (GMAW)
- WLDG 1313 - Intro to Blueprint Reading for Welders
- WLDG 1428 - Intro Shielded Metal Arc Welding (SMAW)
- MATH 1332 - Contemporary Math (Quantitative Reason)
  OR MATH 1314 - College Algebra
  OR MATH 1324 - Mathematics Business & Social Sciences
- WLDG 1434 - Intro to Gas Tungsten Arc Wldg (GTAW)

Term II

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- ENGL 1301 - Composition I
- WLDG 1312 - Intro to Flux Cored Arc Welding (FCAW)

AND

Complete one course from each option below

Complete ALL of the following Course Sets:

- Speech and Communication Skills (3 Semester Credit Hours)
- Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Second Year
Type
Completion Requirement

Term III

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- WLDG 1435 - Introduction to Pipe Welding
- WLDG 2443 - Advance Shielded Metal Arc Welding SMAW
- WLDG 1417 - Introduction to Layout and Fabrication
- BCIS 1305 - Business Computer Applications
  OR COSC 1301 - Introduction to Computing

Term IV

- Meet with your Career Advisor

Fulfill ALL of the following requirements:

Required Courses

Complete ALL of the following Courses:

- WLDG 2413 - Intermed Weld Using Multiple Processes
- WLDG 2451 - Advanc Gas Tungsten Arch Welding (GTAW)
- WLDG 2453 - Advanced Pipe Welding

AND

Complete one course from the option below

Complete ALL of the following Course Sets:

- Government and Political Science (3 Semester Credit Hours)

- Apply for Graduation

Total Semester Hours
60

Texas Success Initiative (TSI) Requirement for Career and Technical Education (CTE) Programs
All students enrolled in an Associate of Applied Science (AAS) or Level 2 certificate program must meet the requirements of the Texas Success Initiative (TSI). Additional TSI information can be found on Texas Success Initiative (TSI) and the Texas Success Initiative - Texas Higher Education Coordinating Board website.

Learning Outcomes

Welding-Basic

General

TCC Pathway
Business & Industry

Location(s)
South, Northwest

Program Name
Welding-Basic

Program Code
WELD.T002.UG

Program Type
Level 1 Certificate

CIP
48.0508

Learn More
Learn more about Welding Technology

Credential Map
Welding Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- WLDG 1428 - Intro Shielded Metal Arc Welding (SMAW)
- WLDG 1430 - Intro to Gas Metal Arc Welding (GMAW)
- WLDG 1313 - Intro to Blueprint Reading for Welders

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- WLDG 1312 - Intro to Flux Cored Arc Welding (FCAW)
- WLDG 1434 - Intro to Gas Tungsten Arc Wldg (GTAW)
- WLDG 1417 - Introduction to Layout and Fabrication

- Apply for Graduation

Total Semester Hours
22

Learning Outcomes

Welding-Advanced

General

TCC Pathway
Business & Industry

Location(s)
South, Northwest

Program Name
Welding-Advanced

Program Code
WELD.T003.UG

Program Type
Level 1 Certificate

CIP
48.0508

Learn More
Learn more about Welding Technology

Credential Map
Welding Technology.pdf

Program Requirements

Simple Requisites

Subplan

First Year
Type
Completion Requirement

Term I

- Meet with your Career Advisor

Complete ALL of the following Courses:

- WLDG 1435 - Introduction to Pipe Welding
- WLDG 2443 - Advance Shielded Metal Arc Welding SMAW

Term II

- Meet with your Career Advisor

Complete ALL of the following Courses:

- WLDG 2453 - Advanced Pipe Welding
- WLDG 2451 - Advanc Gas Tungsten Arch Welding (GTAW)
- WLDG 2413 - Intermed Weld Using Multiple Processes

- Apply for Graduation

Total Semester Hours
20

Learning Outcomes

All Courses

ABDR 1307 - Collision Repair Welding

General

Course Key
14357

Course Rubric	Course Number	Course Title
ABDR	1307	Collision Repair Welding

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) A study of collision repair welding and cutting procedures. Required Co-Requisite: ABDR-2437

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

take abdr-2437;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): ABDR 2437

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of trade terminology (1a, 1b, 2c).
2. Demonstrate an understanding of employment opportunities (1a, 1b, 2c).
3. Demonstrate an understanding of accepted salary range and benefits in the refinishing industry (1a, 1b, 2c).
4. Demonstrate an understanding of original equipment manufacturer (OEM) trends and innovations (1a, 1b, 2c).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by:
    a. explaining paint shop safety;
    b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive refinish shop by:
    a. identifying hazardous waste;
    b. explaining accepted hazardous waste disposal procedures;
    c. explaining relevant EPA regulations.

ABDR 1431 - Basic Refinishing

General

Course Key
14474

Course Rubric	Course Number	Course Title
ABDR	1431	Basic Refinishing

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis on surface preparation, masking techniques, and refinishing of replacement parts.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of trade terminology (1a, 1b, 2c).
2. Demonstrate an understanding of employment opportunities (1a, 1b, 2c).
3. Demonstrate an understanding of accepted salary range and benefits in the refinishing industry (1a, 1b, 2c).
4. Demonstrate an understanding of original equipment manufacturer (OEM) trends and innovations (1a, 1b, 2c).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by:
    a. explaining paint shop safety;
    b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive refinish shop by:
    a. identifying hazardous waste;
    b. explaining accepted hazardous waste disposal procedures;
    c. explaining relevant EPA regulations.

ABDR 1519 - Basic Metal Repair

General

Course Key
14401

Course Rubric	Course Number	Course Title
ABDR	1519	Basic Metal Repair
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
5	3	6

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-6) Covers basic metal principles and working techniques including proper tool usage and product application.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform basic metal straightening procedures; utilize basic body shop hand tools and plastic filler application techniques; and apply personal and environmental safety practices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of collision shop organization by
    a. demonstrating proper use and maintenance of hand tools, power tools, and compressed air systems (1a, 1b, 1c, 2a, 2e).
2. Demonstrate an understanding of frame and unitized vehicles by
    a. describing frame and unitized construction and components (1a, 1b, 1c, 2a, 2e);
    b. performing scratch, nick, ding, and rust repairs (1b, 1c, 2a, 2e);
    c. demonstrating the ability to mix and apply various types of body fillers (1b, 1c, 2a, 2e).
3. Demonstrate an understanding of automobile sheet metal characteristics by
    a. defining physical changes of high strength steel (1a, 1b, 1c, 2a, 2e);
    b. defining different types of sheet metal damage (1a, 1b, 1c, 2a, 2e);
    c. identifying types of mild and high strength steel (1b, 1c, 2a, 2e);
    d. demonstrating sheet metal straightening techniques (1b, 1c, 2a, 2e).
4. Demonstrate an understanding of original equipment manufacturer (OEM) trends and innovations (1b, 1c, 2a, 2e).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by
    a. explaining shop safety (1b, 1c, 2a, 2e);
    b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive repair shop by
    a. identifying hazardous waste (1b, 1c, 2a, 2e);
    b. explaining accepted hazardous waste disposal procedures (1b, 1c, 2a, 2e);
    c. explaining relevant EPA regulations (1b, 1c, 2a, 2e).

End-of-Course Outcomes: Perform basic metal straightening procedures; utilize basic body shop hand tools and plastic filler application techniques; and apply personal and environmental safety practices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of collision shop organization by
    a. demonstrating proper use and maintenance of hand tools, power tools, and compressed air systems (1a, 1b, 1c, 2a, 2e).
2. Demonstrate an understanding of frame and unitized vehicles by
    a. describing frame and unitized construction and components (1a, 1b, 1c, 2a, 2e);
    b. performing scratch, nick, ding, and rust repairs (1b, 1c, 2a, 2e);
    c. demonstrating the ability to mix and apply various types of body fillers (1b, 1c, 2a, 2e).
3. Demonstrate an understanding of automobile sheet metal characteristics by
    a. defining physical changes of high strength steel (1a, 1b, 1c, 2a, 2e);
    b. defining different types of sheet metal damage (1a, 1b, 1c, 2a, 2e);
    c. identifying types of mild and high strength steel (1b, 1c, 2a, 2e);
    d. demonstrating sheet metal straightening techniques (1b, 1c, 2a, 2e).
4. Demonstrate an understanding of original equipment manufacturer (OEM) trends and innovations (1b, 1c, 2a, 2e).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by
    a. explaining shop safety (1b, 1c, 2a, 2e);
    b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive repair shop by
    a. identifying hazardous waste (1b, 1c, 2a, 2e);
    b. explaining accepted hazardous waste disposal procedures (1b, 1c, 2a, 2e);
    c. explaining relevant EPA regulations (1b, 1c, 2a, 2e).

ABDR 1555 - Non-Structural Metal Repair

General

Course Key
14404

Course Rubric	Course Number	Course Title
ABDR	1555	Non-Structural Metal Repair
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
5	3	6

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-6) Demonstrate sheet metal repair skills using mechanical and hydraulic equipment. Emphasis on attachment devices used to straighten and align exterior body panels. Required Prerequisite: ABDR 1519

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take abdr-1519;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ABDR 1519

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform rough-out contours of damaged panels; perform metal repair procedure; apply personal and environmental safety practices; and demonstrate use of hand and power tools.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of corrosion problems by
    a. defining common corrosion factors (1a, 1b, 1c, 2a, 2e);
    b. outlining corrosion treatment procedures (1a, 1b, 1c, 2a, 2e);
    c. applying anticorrosion materials including seam sealers, splatter guard, and undercoating (1a, 1b, 1c, 2a, 2e).
2. Demonstrate an understanding of nonstructural components by
    a. removing damaged nonstructural components (1b, 1c, 2a, 2e);
    b. replacing nonstructural components (1b, 1c, 2a, 2e);
    c. aligning nonstructural components (1b, 1c, 2a, 2e).
3. Demonstrate an understanding of servicing nonstructural component parts by
    a. demonstrating installation and adjustment of door window glass (1a, 1b, 1c, 2a, 2e);
    b. explaining windshield removing procedures (1a, 1b, 1c, 2a, 2e);
    c. installing moldings and body accessories including bumpers, lights, grills, and ground effects (1a, 1b, 1c, 2a, 2e).
4. Demonstrate an understanding of automotive plastics by
    a. repairing different types of automotive plastics (1a, 1b, 1c, 2a, 2e);
    b. performing plastic identification and minor adhesive repair techniques (1b, 1c, 2a, 2e);
    c. performing fiberglass and sheet molded compound (SMC) repairs (1b, 1c, 2a, 2e).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by
    a. explaining shop safety (1b, 1c, 2a, 2e);
    b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive repair shop by
    a. identifying hazardous waste (1b, 1c, 2a, 2e);
    b. explaining hazardous waste disposal procedures (1b, 1c, 2a, 2e);
    c. explaining relevant EPA regulations (1b, 1c, 2a, 2e).

ABDR 1558 - Intermediate Refinishing

General

Course Key
35

Course Rubric
ABDR

Course Number
1558

Course Title
Intermediate Refinishing

Semester Credit Hours
5

Lecture Hours
3

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-6) Training in mixing and spraying of automotive topcoats. Introduction to partial panel refinishing techniques. Recommended Prerequisite: ABDR-1431

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): ABDR 1431

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform rough-out contours of damaged panels; perform metal repair procedure; apply personal and environmental safety practices; and demonstrate use of hand and power tools.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of corrosion problems by
    a. defining common corrosion factors (1a, 1b, 1c, 2a, 2e);
    b. outlining corrosion treatment procedures (1a, 1b, 1c, 2a, 2e);
    c. applying anticorrosion materials including seam sealers, splatter guard, and undercoating (1a, 1b, 1c, 2a, 2e).
2. Demonstrate an understanding of nonstructural components by
    a. removing damaged nonstructural components (1b, 1c, 2a, 2e);
    b. replacing nonstructural components (1b, 1c, 2a, 2e);
    c. aligning nonstructural components (1b, 1c, 2a, 2e).
3. Demonstrate an understanding of servicing nonstructural component parts by
    a. demonstrating installation and adjustment of door window glass (1a, 1b, 1c, 2a, 2e);
    b. explaining windshield removing procedures (1a, 1b, 1c, 2a, 2e);
    c. installing moldings and body accessories including bumpers, lights, grills, and ground effects (1a, 1b, 1c, 2a, 2e).
4. Demonstrate an understanding of automotive plastics by
    a. repairing different types of automotive plastics (1a, 1b, 1c, 2a, 2e);
    b. performing plastic identification and minor adhesive repair techniques (1b, 1c, 2a, 2e);
    c. performing fiberglass and sheet molded compound (SMC) repairs (1b, 1c, 2a, 2e).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by
    a. explaining shop safety (1b, 1c, 2a, 2e);
    b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive repair shop by
    a. identifying hazardous waste (1b, 1c, 2a, 2e);
    b. explaining hazardous waste disposal procedures (1b, 1c, 2a, 2e);
    c. explaining relevant EPA regulations (1b, 1c, 2a, 2e).

ABDR 2402 - Auto Body Mechanical/Electrical Service

General

Course Key
14402

Course Rubric
ABDR

Course Number
2402

Course Title
Auto Body Mechanical and Electrical Service

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-6) A course in the repair, replacement, and/or service of collision damaged mechanical or electrical systems. Topics include drive train removal, reinstallation and service; cooling system service and repair; exhaust system service; and emission control systems. Additional topics include wire and connector repair, reading wiring diagrams, and troubleshooting. Required Prerequisite: ABDR-2437

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ABDR-2437;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ABDR 2437

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify mechanical or electrical system damage; repair, replace, and/or service damaged mechanical or electrical components.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of power train components of a vehicle by
    a. demonstrating the ability to define, inspect, and repair or replace power train components (1a, 1b, 1c, 2a, 2c, 2e);
    b. demonstrating the ability to define, inspect, and repair or replace suspension and steering system components (1a, 1b, 1c, 2a, 2c, 2e);
    c. defining steering problems camber, caster, toe, scrub radius, and turning radius (1a, 1b, 1c, 2a, 2c, 2e).
2. Demonstrate an understanding of mechanical components other than power train by
    a. demonstrating the ability to define, inspect, and repair or replace cooling system components (1a, 1b, 1c, 2a, 2e);
    b. demonstrating the ability to define, inspect, and repair or replace air conditioning components (1a, 1b, 1c, 2a, 2e);
    c. demonstrating the ability to define, inspect, and repair or replace brake system components (1a, 1b, 1c, 2a, 2e);
    d. demonstrating the ability to define, inspect, and repair or replace emission system components (1a, 1b, 1c, 2a, 2e);
    e. demonstrating the ability to define, inspect, and repair or replace exhaust system components (1a, 1b, 1c, 2a, 2e).
3. Demonstrate an understanding of electrical components of a vehicle by
    a. demonstrating the ability to define, inspect, and repair or replace electrical components (1a, 1b, 1c, 2a, 2e);
    b. interpreting electrical diagrams (1a, 1b, 1c, 2a, 2e).
4. Demonstrate awareness of the restraint system of a vehicle by
    a. defining components of a restraint system (1a, 1b, 1c, 2a, 2e);
    b. demonstrating the ability to inspect and replace components of a restraint system (1a, 1b, 1c, 2a, 2e).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by
    a. explaining shop safety (1b, 1c, 2a, 2e);
    b. explaining the practices necessary to insure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive repair shop by
    a. identifying hazardous waste (1a, 1b, 2a, 2c, 2e);
    b. explaining accepted hazardous waste disposal procedures (1a, 1b, 2a, 2c, 2e);
    c. explaining relevant EPA regulations (1a, 1b, 2a, 2c, 2e).

ABDR 2437 - Structural Analysis and Damage Repair V

General

Course Key
14405

Course Rubric
ABDR

Course Number
2437

Course Title
Structural Analysis and Damage Repair V

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Operation of equipment and the procedures involved in the repair of body structures. Special emphasis on conducting a thorough damage analysis as well as demonstrating proper pulling and anchoring techniques. Required Prerequisite: ABDR-1555 Required Co-requisite: ABDR-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ABDR-1555;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

take abdr-1307;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ABDR 1555
Required Corequisite(s): ABDR 1307

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze structural damage using proper equipment; perform structural repairs; and correct primary and secondary damage through the use of properly applied pulling and anchoring techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of vehicle damage analysis by
    a. explaining components of an estimate (1a, 1b, 1c, 2a, 2e);
    b. writing an estimate of damage repair (1a, 1b, 1c, 2a, 2e);
    c. analyzing damage using measuring techniques (1a, 1b, 1c, 2a, 2c, 2e);
    d. applying measuring techniques in vehicle repair (1a, 1b, 1c, 2a, 2c, 2e).
2. Demonstrate an understanding of structural components by
    a. removing damaged structural components (1b, 1c, 2a, 2c, 2e);
    b. distinguishing sectioning procedures on structural components (1b, 1c, 2a, 2c, 2e).
3. Demonstrate an understanding of straightening procedures by
    a. demonstrating proper tie down techniques on frame vehicles and unitized vehicles (1a, 1b, 1c, 2a, 2e);
    b. demonstrating proper pulling techniques on frame and unitized vehicles (1b, 1c, 2a, 2c, 2e).
4. Demonstrate an understanding of corrosion protection by
    a. demonstrating proper anticorrosion techniques on structural components (1b, 1c, 2a, 2e).
5. Demonstrate an understanding of Occupational Safety and Health Act (OSHA) regulations by
    a. explaining shop safety (1b, 1c, 2a, 2e);
    b. explaining the practices necessary to insure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);

c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

6. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive repair shop by

a. identifying hazardous waste (1a, 1b, 2c, 2e);

b. explaining accepted hazardous waste disposal procedures (1a, 1b, 2c, 2e);

c. explaining relevant EPA regulations (1a, 1b, 2c, 2e).

ABDR 2549 - Advanced Refinishing

General

Course Key
58

Course Rubric
ABDR

Course Number
2549

Course Title
Advanced Refinishing

Semester Credit Hours
5

Lecture Hours
3

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-6) Application of multi-stage refinishing techniques. Advanced skill development solving refinishing problems. Application of multi-stage refinishing techniques with emphasis on formula mixing and special spraying techniques. Required Prerequisite: ABDR-1558

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ABDR-1558;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ABDR 1558

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Mix and spray multi-stage paint systems; analyze paint problems and their prevention and solutions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of color matching, analyzing color, and adjusting color by

a. defining color match, paint texture, gloss, and metamerism (1a, 1b, 1c, 2a, 2e);

b. defining hue, value, and chroma (1a, 1b, 1c, 2a, 2e);

c. developing color recognition skills (1a, 1b, 1c, 2a, 2e);

d. analyzing paint formulas (1a, 1b, 1c, 2a, 2c, 2e);

e. demonstrating tinting procedures (1a, 1b, 1c, 2a, 2e);

f. demonstrating adjusting color with gun adjustment (1a, 1b, 1c, 2a, 2e).

2. Demonstrate an understanding of proper refinishing procedures by

a. selecting the proper refinishing system (1a, 1b, 1c, 2a, 2e);

b. describing a complete and sectional panel repair (1a, 1b, 1c, 2a, 2e);

c. demonstrating panel and spot spraying (blending) techniques (1a, 1b, 1c, 2a, 2e);

d. demonstrating brush touchup (1a, 1b, 1c, 2a, 2e);

e. describing natural break lines (1a, 1b, 1c, 2a, 2e);

f. describing reverse masking (1a, 1b, 1c, 2a, 2e);

g. explaining two gun method of blending paint (1a, 1b, 1c, 2a, 2e).

3. Demonstrate an understanding of OSHA regulations by

a. explaining paint shop safety (1b, 1c, 2a, 2e);

b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);

c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

4. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive refinish shop by

a. identifying hazardous waste (1a, 1b, 2c, 2e);

b. explaining accepted hazardous waste disposal procedures (1a, 1b, 2c, 2e);

c. explaining relevant EPA regulations (1a, 1b, 2c, 2e).

ABDR 2551 - Specialized Refinishing Techniques

General

Course Key
67

Course Rubric
ABDR

Course Number
2551

Course Title
Specialized Refinishing Techniques

Semester Credit Hours
5

Lecture Hours
3

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-6) Advanced topics in specialty automotive refinishing. Emphasis on refinishing plastics, fiberglass, aluminum, and galvanized panels as well as custom graphics and current industry innovations. Required Prerequisite: ABDR-2549

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ABDR-2549;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ABDR 2549

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Refinish plastics, fiberglass, aluminum, and galvanized panels; and perform lay out design and spray custom graphics.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of refinishing interior plastics by
    a. identifying interior trim codes (1a, 1b, 1c, 2a, 2e);
    b. demonstrating the ability to prepare and refinish interior plastics (1a, 1b, 1c, 2a, 2e);
    c. demonstrating the ability to formulate, describe, and mix semigloss paints using flattening compounds (1a, 1b, 1c, 2a, 2e);
    d. adjusting spray for interior finishes (1a, 1b, 1c, 2a, 2c, 2e).
2. Demonstrate an understanding of repair or replacement of flexible plastic parts by
    a. demonstrating the ability to identify plastic and determine proper repair procedure (1a, 1b, 1c, 2a, 2c, 2e);
    b. demonstrating the ability to adjust spray gun and apply adhesion promoters and essential primers (1a, 1b, 1c, 2a, 2e);
    c. demonstrating the ability to select and apply proper repair products (1a, 1b, 1c, 2a, 2c, 2e).
3. Demonstrate an understanding of spraying vinyl plastics and repairing automotive vinyl tops by
    a. demonstrating the ability to explain and perform proper vinyl cleaning procedures (1a, 1b, 1c, 2a, 2e);
    b. demonstrating vinyl repair procedures (1a, 1b, 1c, 2a, 2e);
    c. adjusting spray gun for vinyl finishes (1a, 1b, 1c, 2a, 2e);
    d. performing automotive vinyl refinishing procedure (1a, 1b, 1c, 2a, 2c, 2e);
    e. explaining vinyl top replacement (1a, 1b, 1c, 2a, 2e).
4. Demonstrate an understanding of proper refinishing of anticorrosion panels and aluminum panels (1a, 1b, 1c, 2a, 2e).
5. Demonstrate an understanding of adjusting spray gun and application of splatter finishes (1a, 1b, 1c, 2a, 2e).
6. Demonstrate an understanding of OSHA regulations by
    a. explaining paint shop safety (1b, 1c, 2a, 2e);
    b. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    c. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
7. Demonstrate an understanding of EPA regulations governing emissions and hazardous waste disposal from an automotive refinish shop by
    a. identifying hazardous waste (1a, 1b, 2a, 2c);
    b. explaining accepted hazardous waste disposal procedures (1a, 1b, 2a, 2c);
    c. explaining relevant EPA regulations (1a, 1b, 2a, 2c).

ACCT 2301 - Principles of Financial Accounting

General

Course Key
16235

Course Rubric
ACCT

Course Number
2301

Course Title
Principles of Financial Accounting

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is an introduction to the fundamental concepts of financial accounting as prescribed by U.S. generally accepted accounting principles (GAAP) as applied to transactions and events that affect business organizations. Students will examine the procedures and systems to accumulate, analyze, measure, and record financial transactions. Students will use recorded financial information to prepare a balance sheet, income statement, statement of cash flows, and statement of shareholders' equity to communicate the business entity's results of operations and financial position to users of financial information who are external to the company. Students will study the nature of assets, liabilities, and owners' equity while learning to use reported financial information for purposes of making decisions about the company. Students will be exposed to International Financial Reporting Standards (IFRS). Recommended Corequisite: MATH-1324

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

Take MATH-1324;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ACCT 2302 - Principles of Managerial Accounting

General

Course Key
16236

Course Rubric
ACCT

Course Number
2302

Course Title
Principles of Managerial Accounting

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity's accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation. Required Prerequisite: ACCT 2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ACCT-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ACNT 1303 - Introduction to Accounting I

General

Course Key
10472

Course Rubric
ACNT

Course Number
1303

Course Title
Introduction to Accounting I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. For non-accounting majors.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define accounting terminology; analyze and record business transactions in a manual and computerized environment; complete the accounting cycle; prepare financial statements; apply accounting concepts related to cash and payroll; prepare bank reconciliations; and correct accounting errors.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. The student will demonstrate an understanding of accounting concepts and procedures, recording of business transactions, and the beginning of the accounting cycle by
    a. demonstrating the ability to define, list, and record transactions in the basic accounting equation (1a, 1b);
    b. expanding the basic accounting equation (1a, 1b);
    c. preparing an income statement, statement of owner's equity, and a balance sheet (1a, 2a, 2b, 2c);
    d. demonstrating the ability to organize a chart of accounts, record transactions, prepare trial balance sheet, and prepare financial statements from a trial balance (2a, 2b, 2c, 2d, 2e);
    e. demonstrating the ability to journalize, post, and prepare a trial balance (2a, 2b, 2c, 2d, 2e).
2. The student will perform worksheet transactions involved in completing the accounting cycle by
    a. demonstrating the ability to perform adjustments and prepare adjusted trial balance on the worksheet (1a, 1b);
    b. completing income statement and balance sheet (1a, 1b);
    c. preparing financial statements from worksheet (2b, 2c, 2d, 2e);
    d. demonstrating the ability to journalize and post adjusting entries and post-closing entries (2b, 2c, 2d, 2e);
    e. preparing a post-closing trial balance (2b, 2c, 2d, 2e);
    f. completing a two month comprehensive practice set including all concepts of the accounting cycle studied (1b, 2c, 2d).
3. The student will demonstrate an understanding of banking procedures and the payroll process by
    a. demonstrating the ability to deposit, write, and endorse checks for checking account and reconcile a bank statement (1c, 2b);
    b. demonstrating the ability to establish and replenish a petty cash fund (1c, 2b);
    c. demonstrating the ability to calculate gross pay, employee payroll tax deductions, and employer taxes, and to complete payroll register (1a, 1c, 2c, 2d, 2e).
4. The student will complete specialized worksheet transactions for a merchandise company by
    a. preparing a schedule of accounts receivable (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. preparing a schedule of accounts payable (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. preparing a worksheet for a merchandise company (1a, 1b, 1c, 2a, 2d, 2e);
    d. preparing financial statements, record adjusting, and closing entries (1a, 1b, 1c, 2a, 2d, 2e);
    e. preparing post-closing trial balance and complete reversing entries (1a, 1b, 1c, 2a, 2d, 2e).

ACNT 1311 - Introduction to Computerized Accounting

General

Course Key
131

Course Rubric
ACNT

Course Number
1311

Course Title
Introduction to Computerized Accounting

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Introduction to utilizing the computer in maintaining accounting records with primary emphasis on a general ledger package. Recommended Prerequisite or Corequisite: ACCT-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/co-requisite

10
A Requirement block where all subrequirements are required

Take ACCT-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): ACCT 2301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize an application software to perform accounting tasks; maintain records; prepare reports; analyze reports for a business entity; complete a comprehensive project; and explain the components of general ledger software.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of accounting theories and concepts involving creating a company using the general ledger package by
    a. managing a chart of accounts for a service and merchandising company, including preparation and maintenance (1a, 1b, 2a, 2c, 2d);
    b. preparing appropriate information for processing customer, vendor, and inventory information (1a, 1b, 2a, 2c, 2d);
    c. journalizing transactions using the rules of debits and credits (1a, 1b, 2a, 2c, 2d);
    d. managing company files, including backup and restoring (1a, 1b, 2a, 2c, 2d);
    e. managing adjusting entries, including identification and journalizing (1a, 1b, 2a, 2c, 2d).
2. Demonstrate an understanding of accounting theories and concepts involving banking activities by
    a. preparing checks utilizing the general ledger package (1a, 1b, 2a, 2c, 2d);
    b. preparing a bank reconciliation (1a, 1b, 2a, 2c, 2d);
    c. journalizing transactions affecting cash (1a, 1b, 2a, 2c, 2d).
3. Demonstrate an understanding of accounting theories and concepts involving sales to customers by
    a. recording cash and credit sales to customers (1a, 1b, 2a, 2c, 2d);
    b. preparing the necessary information to maintain customer subsidiary ledgers (1a, 1b, 2a, 2c, 2d);
    c. preparing and maintaining the necessary information to report customer data and/or analysis (1a, 1b, 2a, 2c, 2d);
    d. recording receipts from customers on their accounts (1a, 1b, 2a, 2c, 2d);
    e. preparing the appropriate reports for analyzing accounts receivable (1a, 1b, 2a, 2c, 2d).
4. Demonstrate an understanding of accounting theories and concepts involving vendors, purchases, and inventory by
    a. managing information necessary to process the vendor subsidiary ledger, including preparation and maintenance (1a, 1b, 2a, 2c, 2d);
    b. creating purchase orders (1a, 1b, 2a, 2c, 2d);
    c. managing information necessary to process the inventory subsidiary ledger, including preparation and maintenance (1a, 1b, 2a, 2c, 2d);
    d. recording receipt of merchandise order using purchase orders (1a, 1b, 2a,

2c, 2d);

e. recording receipt of bills from vendors (1a, 1b, 2a, 2c, 2d);

f. paying vendor bills (1a, 1b, 2a, 2c, 2d);

g. preparing physical inventory records (1a, 1b, 2a, 2c, 2d);

h. recording sales tax (1a, 1b, 2a, 2c, 2d);

i. paying sales tax (1a, 1b, 2a, 2c, 2d);

j. preparing the appropriate reports for accounts payable (1a, 1b, 2a, 2c, 2d).

5. Demonstrate an understanding of accounting theories and concepts involving employees and payroll by

a. managing appropriate employee records for processing of payroll, including preparation and maintenance of records and appropriate recognition of withholding allowances, Federal and State withholdings, and any other employee authorized withholdings (1a, 1b, 2a, 2c, 2d);

b. entering the appropriate hours for hourly employees (1a, 1b, 2a, 2c, 2d);

c. processing overtime pay appropriately (1a, 1b, 2a, 2c, 2d);

d. preparing Federal 941 (1a, 1b, 2a, 2c, 2d);

e. preparing W-2's (1a, 1b, 2a, 2c, 2d);

f. preparing the appropriate reports for payroll (1a, 1b, 2a, 2c, 2d).

6. Demonstrate an understanding of accounting theories and concepts involving reporting using the general ledger package by

a. preparing a balance sheet (1a, 1b, 2a, 2c, 2d);

b. preparing an income statement (1a, 1b, 2a, 2c, 2d);

c. preparing a statement of cash flows (1a, 1b, 2a, 2c, 2d);

d. preparing a trial balance (1a, 1b, 2a, 2c, 2d);

e. printing journals (1a, 1b, 2a, 2c, 2d).

7. Demonstrate an understanding of fundamental concepts and applications of the software package by

a. completing a comprehensive project or practice set, using appropriate general ledger techniques and methods, that includes either a written or oral presentation to demonstrate understanding of the course learning outcomes (1a, 1b, 2a, 2c, 2d).

ACNT 1313 - Computerized Accounting Applications

General

Course Key
149

Course Rubric	Course Number	Course Title
ACNT	1313	Computerized Accounting Applications
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Use of the computer to develop and maintain accounting records and to process common business applications for managerial decision-making. Recommended Prerequisite: ACCT-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ACCT-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ACCT 2301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize spreadsheet and/or database software for accounting and management applications; and complete a comprehensive project.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of fundamental concepts involving spreadsheets by

a. identifying the components of the spreadsheet (1a, 1b, 2a, 2c, 2d);

b. navigating between cells, columns, rows, and worksheets (1a, 1b, 2a, 2c, 2d);

c. entering data into a spreadsheet (1a, 1b, 2a, 2c, 2d);

d. arranging data on a spreadsheet (1a, 1b, 2a, 2c, 2d);

e. modifying data presented in a spreadsheet (1a, 1b, 2a, 2c, 2d).

2. Demonstrate an understanding of fundamental concepts involving financial data reporting by

a. manipulating columns, rows, cells, and cell ranges (1a, 1b, 2a, 2c, 2d);

b. constructing formulas using absolute and relative values (1a, 1b, 2a, 2c, 2d);

c. creating complex formulas (1a, 1b, 2a, 2c, 2d);

d. comprehending the syntax of analytical functions (1a, 1b, 2a, 2c, 2d);

e. applying analytical functions to financial data (1a, 1b, 2a, 2c, 2d);

f. analyzing spreadsheets to ensure accuracy (1a, 1b, 2a, 2c, 2d).

3. Demonstrate an understanding of techniques involving advanced analytical functions by

a. preparing logical functions (1a, 1b, 2a, 2c, 2d);

b. evaluating single and multiple conditions (1a, 1b, 2a, 2c, 2d);

c. identifying the elements of lookup tables (1a, 1b, 2a, 2c, 2d).

4. Demonstrate an understanding of fundamental concepts involving analytical charts by

a. comparing chart types (1a, 1b, 2a, 2c, 2d);

b. analyzing data from appropriate charts and tables and identifying chart elements (1a, 1b, 2a, 2c, 2d);

c. modifying chart data (1a, 1b, 2a, 2c, 2d).

5. Demonstrate an understanding of tables, pivot tables, and pivot charts by

a. creating a structured spreadsheet (1a, 1b, 2a, 2c, 2d);

b. manipulating records in a table (1a, 1b, 2a, 2c, 2d);

c. creating a pivot table and chart (1a, 1b, 2a, 2c, 2d);

d. modifying a pivot table and chart (1a, 1b, 2a, 2c, 2d).

6. Demonstrate an understanding of software product integration by
    a. linking worksheets or workbooks (1a, 1b, 2a, 2c, 2d);
    b. summarizing data from linked worksheets (1a, 1b, 2a, 2c, 2d);
    c. open text files (1a, 1b, 2a, 2c, 2d);
    d. exporting data from various software products (access, internet, or text files) (1a, 1b, 2a, 2c, 2d);
    e. importing data from various software products (access, internet, or text files) (1a, 1b, 2a, 2c, 2d).

7. Demonstrate an understanding of fundamental concepts involving spreadsheet techniques by
    a. completing a comprehensive project or analysis of a financial concept that includes either a written or oral presentation to demonstrate understanding of the course learning outcomes (1a, 1b, 2a, 2c, 2d).

8. Initiate a professional portfolio by
    a. producing an initial work sample including course comprehensive project (1a, 1b, 1c, 2a, 2e);
    b. developing an error free resume (1a, 1b, 1c, 2a, 2e).

ACNT 1329 - Payroll and Business Tax Accounting

General

Course Key
10473

Course Rubric	Course Number	Course Title
ACNT	1329	Payroll and Business Tax Accounting
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and a computerized environment. Required Corequisite: ACCT-2301 or ACNT-1303

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ACCT-2301 or ACNT-1303;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Corequisite(s): ACCT 2301 or ACNT 1303

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculate employee payroll and employer-related taxes; prepare related tax forms; and manage payroll records required to reflect current laws and regulations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of federal and state laws and regulations affecting payroll and business tax accounting by
    a. identifying federal and state laws and regulations affecting payroll and business tax accounting (1a, 1b, 2c);
    b. utilizing federal and state laws and regulations in computing payroll (1a, 1b, 2a, 2c, 2d);
    c. identifying personnel records and reporting forms required by federal and state law (1a, 1b, 2a, 2c, 2d);
    d. completing personnel records required by federal and state law (1a, 1b, 2a, 2c, 2d);
    e. preparing federal and state reporting forms required by federal and state law (1a, 1b, 2a, 2c, 2d).

2. Demonstrate an understanding of computing earnings by
    a. computing wages and salaries utilizing various methods of compensating employees (1a, 1b, 2a, 2c);
    b. identifying records used for timekeeping (1a, 1b, 2a, 2c);
    c. computing employee work hours in compliance with federal and state law (1a, 1b, 2c).

3. Demonstrate an understanding of social security taxes by
    a. computing social security taxes in compliance with federal law (1a, 1b, 2c);
    b. preparing Federal Form 941 (1a, 1b, 2a, 2c);
    c. explaining the penalties for failure to comply with federal law relating to social security taxes (1a, 1b, 2c).

4. Demonstrate an understanding of federal and state laws relating to income tax withholding by
    a. identifying compensation that is subject to income tax withholding (1a, 1b, 2c);
    b. calculating federal and state income tax to be withheld in compliance with applicable law (1a, 1b, 2a, 2c);
    c. preparing and maintaining information for compliance with applicable law (1a, 1b, 2a, 2c);
    d. maintaining information for compliance with applicable law (1a, 1b, 2a, 2c);
    e. preparing W-2's (1a, 1b, 2a, 2c).

5. Demonstrate an understanding of federal and state unemployment compensation taxes by
    a. identifying compensation that is subject to unemployment taxes (1a, 1b, 2c);
    b. calculating unemployment taxes to be withheld in compliance with applicable law (1a, 1b, 2a, 2c);
    c. preparing necessary reporting forms for federal and state unemployment taxes (1a, 1b, 2a, 2c).
6. Demonstrate an understanding of accounting theories and concepts involving analyzing and journalizing payroll transactions by
    a. preparing journal entries to properly record payroll transaction (1a, 1b, 2a, 2c);
    b. preparing and maintaining employees' earnings records (1a, 1b, 2a, 2c);
    c. preparing proper accruals relating to payroll (1a, 1b, 2a, 2c).
7. Demonstrate an understanding of fundamental concepts and applications of payroll accounting by
    a. completing a comprehensive project or practice set using appropriate techniques and methods and including either a written or oral presentation (1a, 1b, 2a, 2c).

ACNT 1373 - Accounting Data Analytics

General

Course Key
16498

Course Rubric	Course Number	Course Title
ACNT	1373	Accounting Data Analytics
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) This course provides an overview of the foundational data analytics skills for accounting professionals, including digital skills, data structures, and various analytics tools. This course will provide an understanding of the process of extracting, transforming, and loading data and using that data to make accounting decisions. There will be an emphasis on the use of software and elements of data visualization. Required Prerequisites: ACCT-2301, BCIS-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take ACCT-2301 BCIS-1305
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ACNT 2302 - Accounting Capstone

General

Course Key
14891

Course Rubric	Course Number	Course Title
ACNT	2302	Accounting Capstone
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Allows students to apply broad knowledge of the accounting profession through discipline specific projects involving the integration of individuals and teams performing activities to simulate workplace situations. Required Prerequisites: ACCT-2301, ACCT-2302, ACNT-1311, ACNT-1313 and ACNT-1329

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ACCT-2301 ACCT-2302 ACNT-1311 ACNT-1313 ACNT-1329;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ACCT 2301, ACCT 2302, ACNT 1311, ACNT 1313 and ACNT 1329

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

1. Complete the accounting cycle for service and merchandising businesses.
2. Demonstrate computer skills related to accounting applications in business.
3. Prepare financial reports.
4. Communicate report findings in written and/or oral form.
5. Solve complex accounting issues.
6. Participate in research and discussion on accounting issues, trends, and/or situations.
7. Prepare an employment portfolio.
    a. Cover letter
    b. Resume
    c. Samples of accounting work
8. Analyze accounting data using current workplace data analysis software.

ACNT 2303 - Intermediate Accounting I

General

Course Key
10475

Course Rubric	Course Number	Course Title
ACNT	2303	Intermediate Accounting I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) Analysis of generally accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Required Prerequisite: ACCT-2302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ACCT-2302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ACCT 2302

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify objectives of financial accounting; define generally accepted accounting principles; prepare and analyze financial statements; and analyze complex transactions affecting asset accounts.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of financial accounting and accounting standards by
    a. identifying the major financial statements and other means of financial reporting (1a, 1b, 2c);
    b. identifying and describing the objectives of financial reporting (1a, 1b, 2c);
    c. explaining the meaning of Generally Accepted Accounting Principles (GAAP) (1a, 1b, 2c);
    d. identifying the basic elements of financial statements (1a, 1b, 2c);
    e. describing the basic assumptions and principles of accounting and the constraints on reporting accounting information (1a, 1b, 2c).
2. Complete the sequential steps and procedures in the accounting cycle under Generally Accepted Accounting Principles by
    a. identifying steps in the accounting cycle (1a, 1b, 2c);
    b. journalizing financial transactions using the rules of double entry accounting (1a, 1b, 2c);
    c. recording transaction in journals, posing to ledger accounts, and preparing a trial balance (1a, 1b, 2c);
    d. explaining the need for preparing adjusting entries (1a, 1b, 2c);
    e. journalizing adjusting entries (1a, 1b, 2c);
    f. preparing financial statements from the adjusted trial balance (1a, 1b, 2c);
    g. preparing closing entries (1a, 1b, 2c).
3. Demonstrate an understanding of accounting theories and concepts involving the receivables by
    a. defining receivables and identifying the different types of receivables (1a, 1b, 2c);
    b. explaining the accounting issues related to recognition of receivables (1a, 1b, 2c);
    c. explaining the accounting issues related to valuation of receivables (1a, 1b, 2c);
    d. describing how to report receivables (1a, 1b, 2c).
4. Demonstrate an understanding of accounting theories and concepts involving inventory by
    a. identifying the major classifications of inventory (1a, 1b, 2c);
    b. comparing the cost flow assumptions used to account for inventories (1a, 1b, 2c);
    c. computing cost of goods sold and ending inventory using each of the cost flow methods (1a, 1b, 2c);
    d. applying the lower of cost or market rule (1a, 1b, 2c);
    e. explaining how to report inventory (1a, 1b, 2c).
5. Demonstrate an understanding of accounting theories and concepts involving property, plant, and equipment assets by
    a. describing property, plant, equipment, and costs to include in initial valuation (1a, 1b, 2c);
    b. describing the accounting treatment for costs subsequent to acquisition (1a, 1b, 2c);
    c. explaining the concept of depreciation (1a, 1b, 2c);
    d. identifying the factors involved in the depreciation process (1a, 1b, 2c);
    e. computing depreciation using the different depreciation methods (1a, 1b, 2c);
    f. describing the accounting treatment for the disposal of property, plant, and equipment (1a, 1b, 2c);
    g. explaining how to report property, plant, and equipment (1a, 1b, 2c).
6. Demonstrate an understanding of accounting theories and concepts involving intangible assets by
    a. describing the characteristics of intangible assets (1a, 1b, 2c);
    b. identifying the costs to include in the initial valuation of intangible assets (1a, 1b, 2c);
    c. explaining the procedures of amortizing intangible assets (1a, 1b, 2c);
    d. explaining the conceptual issues related to goodwill (1a, 1b, 2c);
    e. describing the accounting procedures for goodwill (1a, 1b, 2c);
    f. explaining the accounting issues related to impairment of goodwill (1a, 1b, 2c);
    g. explaining how to report intangible assets (1a, 1b, 2c).
7. Demonstrate an understanding of accounting theories and concepts involving liabilities by
    a. describing the nature, type, and valuation of current liabilities (1a, 1b, 2c);
    b. identifying the various types of bond issues (1a, 1b, 2c);
    c. describing the accounting valuation of bonds at the date of issuance (1a, 1b, 2c);
    d. describing the accounting procedures for the extinguishment of debt (1a, 1b, 2c);
    e. identifying the criteria used to account for and disclose gain and loss contingencies (1a, 1b, 2c);
    f. explaining how to report liabilities and contingencies (1a, 1b, 2c).
8. Demonstrate an understanding of accounting theories and concepts involving stockholders' equity by
    a. identifying the components of stockholders' equity (1a, 1b, 2c);
    b. explaining the accounting and reporting for preferred stock (1a, 1b, 2c);
    c. explaining the accounting for the various forms of dividend distributions (1a, 1b, 2c);
    d. explaining how to report stockholders' equity (1a, 1b, 2c).
9. Demonstrate an understanding of the accounting theories and concepts involving investments by
    a. identifying the categories of debt securities and describing the accounting and reporting treatment of each category (1a, 1b, 2c);
    b. understanding the procedures for discount and premium amortization on bond investments (1a, 1b, 2c);
    c. identifying the categories of equity securities (1a, 1b, 2c);
    d. describing the accounting and reporting treatment for each category of equity securities (1a, 1b, 2c);
    e. explaining the equity method of accounting and comparing it to the fair value method for equity securities (1a, 1b, 2c);
    f. explaining how to report investments (1a, 1b, 2c).
10. Demonstrate an understanding of the significance of professional judgment and ethical conduct by
    a. discussing the impact of ethical behavior on the financial statements (1a, 1b, 2c);
    b. discussing the impact of unethical behavior on the financial statements (1a, 1b, 2c).

ACNT 2309 - Cost Accounting

General

Course Key
10476

Course Rubric
ACNT

Course Number
2309

Course Title
Cost Accounting

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) A study of budgeting, cost analysis and cost control systems using traditional and contemporary costing methods and theories in decision making. Required Prerequisite: ACCT-2302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ACCT-2302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ACCT 2302

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply cost accounting concepts in manufacturing and service environments; and prepare report analysis for management decision making.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Use an appropriate accounting vocabulary by
    a. defining key cost accounting terms (1a, 1b, 2c);
    b. explaining the differences in cost behaviors (1a, 1b, 2c);
    c. identifying the component parts of the value chain of business functions (1a, 1b, 2c).
2. Identify the component parts of the financial statements for a manufacturer by
    a. differentiating between product costs and period costs (1a, 1b, 2a, 2c);
    b. identifying the three product cost elements (1a, 1b, 2c);
    c. preparing schedules of costs of goods manufactured and cost of goods sold in good form (1a, 1b, 2a, 2c);
    d. explaining the differences between financial statements of manufacturers and of merchandisers (1a, 1b, 2a, 2c);
    e. preparing variable costing and absorption costing financial statement (1a, 1b, 2a, 2c).
3. Demonstrate an understanding of process costing, job costing, and activity based costing by
    a. describing the physical flow of product costs in a cost system (1a, 1b, 2a, 2c);
    b. calculating product costs using process costing, job costing, and activity based costing (1a, 1b, 2a, 2c);
    c. computing equivalent units of production using both weighted average and first in, first out methods (1a, 1b, 2a, 2c);
    d. describing the accounting process for normal spoilage, abnormal spoilage, reworked units, and scrap (1a, 1b, 2a, 2c);
    e. preparing a production cost report with or without spoilage under both weighted average and first in, first out methods (1a, 1b, 2a, 2c).
4. Demonstrate an understanding of accounting theories and concepts involving standard costing by
    a. discussing the benefits and limitations of standard costing (1a, 1b, 2c);
    b. calculating variances applicable to a standard cost system (1a, 1b, 2a, 2c);
    c. identifying potential factors that may have a positive or negative effect on the variances (1a, 1b, 2a, 2c).
5. Allocate joint costs, service department costs, and common costs by
    a. explaining accounting procedures for joint products and byproducts (1a, 1b, 2a, 2c);
    b. allocating service department costs using the direct, step, and/or reciprocal methods (1a, 1b, 2a, 2c);
    c. allocating common costs (1a, 1b, 2a, 2c).

ACNT 2332 - Accounting Information Systems

General

Course Key
16502

Course Rubric
ACNT

Course Number
2332

Course Title
Accounting Information Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A study of accounting information systems and related subsystems, including data collection, security, retrieval, manipulation, filtering, and sorting of data. This course provides basic knowledge of how accounting information systems (AIS) function in today's business environment. Other topics include the accounting cycle, general ledger, internal controls, ethics, data analytics, and emerging technologies. Required Prerequisites: ACCT-2302 ACNT-1311 ACNT-1313 BCIS-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take ACCT-2302 ACNT-1311 ACNT-1313 BCIS-1305
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ACNT 2373 - Small Business Accounting

General

Course Key
16512

Course Rubric
ACNT

Course Number
2373

Course Title
Small Business Accounting

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Course will address advanced topics in small business accounting with an emphasis on the use of software and project-based learning. Students will review accounts payable processing, accounts receivable processing, payroll processing, prepare bank reconciliations, credit card reconciliations and other accounting tasks, such as preparing adjusting entries, financial statements, and closing entries. Required Pre-Requisites: ACNT-1311, ACNT-1313, ACNT-1329, ACCT-2302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Pre-Requisite(s): ACNT-1311, ACNT-1313, ACNT-1329, ACCT-2302

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

1. Demonstrate accounts payable, accounts receivable and payroll processing. (C2, C5, C6, C8, C19, F1, F9)
2. Prepare a bank reconciliation for consecutive months. (C2, C5, C6, C8, C19, F1, F9)
3. Prepare credit card reconciliations. (C2, C5, C6, C8, C19, F1, F9)
4. Prepare, examine, or analyze accounting transactions, financial statements, tax returns, or other financial reports to assess accuracy, completeness, and conformance to reporting and procedural standards. (C2, C5, C6, C8, C19, F1, F9)
5. Demonstrate the use of the general journal, general ledger, special journals and subsidiary ledgers. (C2, C5, C6, C8, C19, F1, F9)
6. Use appropriate technology to solve real-world accounting and business problems. (C2, C5, C6, C7, C8, C18, C19; F8, F9, F12)
7. Demonstrate practical experience working with accounting information through project-based learning including both individual and team settings. (C2, C6, C7, C8, C9, C18, C19, F3, F4, F9, F10, F12)

AERM 1101 - Introduction to Aviation

General

Course Key
229

Course Rubric	Course Number	Course Title
AERM	1101	Introduction to Aviation
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
1	1	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0). An overview of aviation maintenance including the history of aviation, the mechanic's roles and duties, and nomenclature of aircraft and safety.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify important events and people in aviation; identify aircraft components; identify safety procedures; and list the responsibilities of an airframe and powerplant technician.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an awareness of aviation history by
    a. discussing mankind's historical interest in flight (1a, 1b);
    b. describing early aircraft designs (lighter than air/heavier than air) (1a, 1b);
    c. listing at least four pioneers in aviation history (must include Charles Taylor) (1a, 1b);
    d. identifying the driving forces that provided rapid advancement in aircraft design and performance (1a, 1b);
    e. describing aviation (aerospace) contributions to society (1a, 1b).
2. Demonstrate an understanding of basic aircraft aerodynamics by
    a. identifying exterior aircraft components (1a, 1b);
    b. explaining the basic science of flight (the physics of flight) (1a, 1b).
3. Demonstrate an understanding of the process of becoming a Federal Aviation Administration (FAA) Certificated Airframe and Powerplant rated, Aircraft Maintenance Technician (A&P) by
    a. discussing the aircraft maintenance technician's role, responsibilities, and opportunities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining the FAA required process to become an A&P (1a, 1b, 2a, 2c, 2e).
4. Demonstrate an understanding of the importance of safety awareness and safety practices within the aviation (aerospace) industry by
    a. identifying safety practices to be observed when in close proximity to operating aircraft on ramps, taxiways, or runways (1b, 2c, 2e);
    b. identifying shop (hangar) safety practices (general shop safety practices);
    c. identifying safety practices to be observed when working with aircraft in a shop environment (1b, 2c, 2e);
    d. identifying maintenance practices that reduce or eliminate damage to aircraft during maintenance activities (1b, 2c, 2e).

AERM 1141 - Wood, Fabric, and Finishes

General

Course Key
11012

Course Rubric	Course Number	Course Title
AERM	1141	Wood, Fabric, and Finishes
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
1	1	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-1). A course in the use and care of various covering materials, finishes, and wood structures including approved methods and procedures. Safety also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Service and repair wood structures; identify wood defects; inspect wood structures; select and apply fabric and fiberglass covering materials; inspect, test, and repair fabric and fiberglass; apply trim, letters, and touch-up paint; identify, select, and apply aircraft finishing materials; inspect finishes and identify defects; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe aircraft wood structures and aircraft fabric covering by
    a. identifying defects in wood samples (1a, 1b, 2c);
    b. identifying different kinds of woods used in aircraft structures (1a, 1b, 2c);
    c. explaining/discussing the inspection of aircraft wood structures (1a, 1b, 2c).
2. Describe the service and repair of aircraft wood structures by
    a. discussing the suitability of substitute materials (1a, 1b, 2c);
    b. describing the kinds of glues and gluing techniques (1a, 1b, 2c);
    c. reading drawings pertaining to repair of aircraft wood structures (1a, 1b, 2c);
    d. identifying protective finishes (1a, 1b, 2c).
3. Demonstrate the ability to select and apply aircraft fabric by
    a. identifying fabrics and seams (1a, 1b, 2c);
    b. describing methods of applying fabric (1a, 1b, 2c);
    c. applying fabric materials (1a, 1b, 2c).
4. Demonstrate the ability to inspect, test, and repair fabric and fiberglass aircraft coverings by
    a. inspecting a fabric covered aircraft structure (1a, 1b, 2c);
    b. identifying areas most susceptible to deterioration (1a, 1b, 2c);
    c. performing a fabric strength test (1a, 1b, 2c);
    d. making a strength test report (1a, 1b, 2c);
    e. discussing the inspection of fiberglass covering (1a, 1b, 2c).
5. Describe trim, lettering, and touch-up paint by
    a. describing the application of registration numbers (1a, 1b, 2c);
    b. describing the application of trim designs and touch-up paint (1a, 1b, 2c).
6. Identify and select aircraft finishing materials by
    a. examining labeling and physical characteristics of samples (1a, 1b, 2c);
    b. identifying finishing materials and thinners (1a, 1b, 2c);
    c. distinguishing between lacquer and enamel (1a, 1b, 2c).
7. Apply finishing materials and inspect finishes for defects by
    a. preparing surfaces for application of finishes (1a, 1b, 2c);
    b. applying finishing materials (1a, 1b, 2c);
    c. inspecting finishes (1a, 1b, 2c);
    d. identifying defects (1a, 1b, 2c).

AERM 1153 - Aircraft Welding

General

Course Key
11013

Course Rubric
AERM

Course Number
1153

Course Title
Aircraft Welding

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-1). Skill development in repair procedures for steel, magnesium, brass, and aluminum materials. Includes the selection and application of appropriate methods of welding, brazing, and soldering. Fundamentals of safety procedures also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Weld magnesium and titanium; solder stainless steel; fabricate tubular structures; solder, braze, gas weld, and arc weld steel; weld aluminum and stainless steel; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of aircraft welding theory and demonstrate the use of welding equipment by
    a. describing welding safety requirements (1a, 1b, 2c);
    b. describing the theory and process of gas welding (1a, 1b, 2c);
    c. describing the theory and process of arc welding (1a, 1b, 2c);
    d. welding using gas welding equipment (1a, 1b, 2c, 2e);
    e. welding using arc welding equipment (1a, 1b, 2c, 2e);
    f. performing soldering and brazing on steel (1a, 1b, 2c, 2e);
    g. describing silver soldering of stainless steel (1a, 1b, 2c);
    h. describing welding and inspection of stainless steel and aluminum (1a, 1b, 2c);
    i. describing welding of magnesium and titanium (1a, 1b, 2c).

AERM 1205 - Weight and Balance

General

Course Key
257

Course Rubric
AERM

Course Number
1205

Course Title
Weight and Balance

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2). An introduction to Federal Aviation Administration (FAA) required subjects relating to the weighing of aircraft, the performance of weight-and-balance calculations, and appropriate maintenance record entries. Required Prerequisite or Corequisite: AERM 1208

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/ Corequisite

10
A Requirement block where all subrequirements are required

Take AERM-1208;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): AERM 1208

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Weigh aircraft, perform weight-and-balance check, and record data and information derived from the weight-and-balance check.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of weight and balance as they relate to safety of flight by
    a. identifying terms and definitions used in aircraft weight and balance (1a, 1b, 2c);
    b. explaining the importance of weight and balance control in aircraft (1a, 1b);
    c. explaining the consequence of failure to control weight and balance in aircraft (1a, 1b).
2. Locate aircraft weight and balance reference data by
    a. locating weight and balance data in a given aircraft's maintenance manual (1a, 2c);
    b. locating weight and balance data in a given aircraft's weight and balance records (1a, 2c);
    c. locating weight and balance data in an aircraft's Type Certificate Data Sheet (1a, 2c);
    d. locating data on installed equipment in an aircraft (1a, 2c);
    e. locating data on weight of installed equipment in an aircraft (1a, 2c).
3. Apply computation data to solve weight and balance problems by
    a. solving simple weight and balance calculation problems (1a, 1b, 2c);
    b. solving for most forward and aft loaded center of gravity calculation problems (1a, 1b, 2c);
    c. solving for new empty weight center of gravity (EWCG) with newly installed or removed equipment (1a, 1b, 2c);
    d. solving for ballast installation or removal (1a, 1b, 2c);
    e. solving weight and balance changes in a helicopter application (1a, 1b, 2c).
4. Determine an aircraft's empty weight center of gravity (EWCG) through an aircraft weighing activity by
    a. gathering all needed reference data for weighing the aircraft (1a, 1b, 1c, 2a, 2b);
    b. placing the aircraft in its empty weight configuration (1a, 1b, 1c, 2b);
    c. placing the aircraft on weighing scales (1a, 1b, 1c, 2a, 2b);
    d. leveling and weighing the aircraft (1a, 1b, 1c, 2a, 2b);
    e. removing the aircraft from the weighing scales and securing the aircraft (1a, 1b, 1c, 2a, 2b);
    f. calculating the empty weight center of gravity of the aircraft (1a, 1b, 1c, 2a, 2b);
    g. preparing a complete maintenance/weight and balance record entry per 14 CFR, Part 43.9 (1a, 1b, 2c).

AERM 1208 - Federal Aviation Regulations

General

Course Key
265

Course Rubric
AERM

Course Number
1208

Course Title
Federal Aviation Regulations

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3). A course in the use and understanding of Federal Aviation Administration (FAA) and aircraft manufacturers' publications, forms, and records; and the exercise of mechanic privileges within prescribed limitations. Regulations and research on CD ROM.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Write descriptions of work performed including aircraft discrepancies corrective actions using typical aircraft maintenance records and required maintenance forms, records, and inspection reports. Apply information contained in Federal Aviation Administration (FAA) and manufacturers' aircraft maintenance specifications, data sheets, manuals, and publications and related Federal Aviation Regulations, Airworthiness Directives, and Advisory material. Analyze technical data and exercise mechanic privileges within the prescribed limitations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an ability to read, comprehend, and apply information contained in Federal Aviation Administration (FAA) and manufacturer's aircraft maintenance specifications, data sheets, manuals, publications and related FAA, Airworthiness Directives and Advisory Materials by
    a. locating reference data, when provided with specific aircraft or aircraft component manufacturer's technical information (1a, 1b, 2c);
    b. researching specific aircraft manufacturer's service manual to determine the aircraft's control surface travel (1a, 1b, 2c);
    c. researching specific aircraft manufacturer's parts manuals to determine the correct part, assembly or component for a given repair (1a, 1b, 2c);
    d. applying information found in FAA Aircraft Specifications (Aircraft Specifications and Type Certificate Data Sheets) (1a, 1b, 2c);
    e. identifying and explaining FAA regulations governing Airworthiness Certificates (1a, 1b, 2c);
    f. selecting and using FAA Technical Standard Orders (1a, 1b, 2c);
    g. selecting and using FAA Airworthiness Directives (1a, 1b, 2c);
    h. applying technical data to solve maintenance problems (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of aircraft mechanic privileges within the limitations prescribed by 14 CFR, Part 65 by
    a. listing aircraft mechanic privileges as specified in Part 65 (1a, 1b, 2c);
    b. listing aircraft mechanic limitations as specified in Part 65 (1a, 1b, 2c);
    c. demonstrating an understanding of the legal and ethical responsibilities of an aircraft mechanic (1a, 1b, 1c, 2c).
3. Make aircraft maintenance record entries in accordance with 14 CFR, Part 43 by
    a. preparing a 100 hour inspection record entry (1a, 1b, 2c);
    b. preparing a 100 hour inspection discrepancy list (1a, 1b, 2c);
    c. preparing a major/minor repair maintenance record entry (1a, 1b, 2c);
    d. preparing an aircraft record entry for the inspection and compliance with an FAA Airworthiness Directive (1a, 1b, 2c).
4. Demonstrate an understanding of the terms and definitions associated with aircraft maintenance record entries by
    a. defining the term time in service (1a, 1b, 2c);
    b. explaining the application of time in service as it relates to aircraft maintenance record entries (1a, 1b, 2c).
5. Use aircraft maintenance record forms and inspection guides by
    a. preparing an FAA Form 337 for a major repair and/or major alteration (1a, 1b, 2c);
    b. identifying inspection checklist (inspection guides) for 100 hour inspections (1a, 1b, 2c);
    c. compiling a list of all required aircraft forms (1a, 1b, 2c).

AERM 1243 - Instruments & Navigation/Communication

General

Course Key
298

Course Rubric
AERM

Course Number
1243

Course Title
Instruments and Navigation/Communication

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2) A study of aircraft instruments and electronic flight instrument systems including testing and installing instruments; inspecting, checking, and troubleshooting navigation and communication systems; and inspecting and repairing antennas and electronic equipment installations. Computer applications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect, check, troubleshoot, and repair flight instrument systems; install and test instruments; and inspect, check, and troubleshoot aircraft navigation and communication systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of handling and installation of aircraft instrument, communication and navigation systems by
    a. describing handling and storing of aircraft instruments (1a, 1b, 2c, 2e);
    b. describing the installation procedures for aircraft instruments (1a, 1b, 2c, 2e);
    c. installing aircraft instruments (1a, 1b, 2c, 2e);
    d. performing a static pressure system leak test on an aircraft system (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of the procedures used to inspect, troubleshoot, and repair an aircraft instrument, communication, and navigation systems by
    a. inspecting an aircraft instrument system (1a, 1b, 2c, 2e);
    b. performing an operational check of an aircraft instrument system (1a, 1b, 2c, 2e);
    c. troubleshooting an aircraft instrument system (1a, 1b, 2c, 2e);
    d. repairing an aircraft instrument system (1a, 1b, 2c, 2e).
3. Demonstrate an understanding of the operating principles of autopilots and approach control systems by
    a. describing the inspection of an autopilot system (1a, 1b, 2c);
    b. describing the performance of a functional check of an autopilot system (1a, 1b, 2c);
    c. describing troubleshooting procedures for an autopilot system (1a, 1b, 2c);
    d. describing autopilot servos (1a, 1b, 2c);
    e. describing approach control systems (1a, 1b, 2c).
4. Demonstrate an understanding of aircraft electronic systems and related communication and navigation systems by
    a. describing the inspection of communication and navigation systems (1a, 1b, 2c);
    b. describing the performance of functional checks of communication and navigation systems (1a, 1b, 2c);
    c. describing troubleshooting procedures for communication and navigation system (1a, 1b, 2c);
    d. describing passenger address and interphone systems (1a, 1b, 2c);
    e. describing specialized navigation systems including VOR, ILS, Loran, Radar Beacon, Transponders, Flight Management Computers, and GPWS systems (1a, 1b, 2c).
5. Demonstrate the ability to inspect, install, and repair aircraft antennas and electronic equipment by
    a. inspecting an aircraft antenna (1a, 1b, 2c, 2e);
    b. repairing or replacing an aircraft antenna (1a, 1b, 2c, 2e);
    c. repairing or replacing related electronic equipment associated with communication and navigation systems (1a, 1b, 2c, 2e).

AERM 1254 - Aircraft Composites

General

Course Key
314

Course Rubric
AERM

Course Number
1254

Course Title
Aircraft Composites

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2). Comprehensive concepts of the inspection and repair of composite, fabric, core, and laminated structural materials including doors, windows, bonded structures, and interior furnishings. Safety procedures to include the handling and storage of composite materials will also be addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Select, install, and remove special fasteners for bonded and composite structures; inspect bonded structures; inspect, test, and repair fiberglass, plastics, honeycombs, composite, and laminated primary and secondary structures; inspect, check, service, and repair windows, doors, and interior furnishings; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the development and use of composite materials in aircraft construction and repair by
    a. explaining composite history (1a, 1b);
    b. describing composite materials (1a, 1b);
    c. describing the different types of composite structures/laminates (1a, 1b);
    d. describing the different uses of composite materials in aircraft construction (1a, 1b, 2c).
2. Identify safety procedures for working with composite materials by
    a. listing safety requirements for handling, using, and storing composite materials (1a, 1b, 2c);
    b. listing safety procedures for handling, cutting, drilling, grinding, and sanding tools (1a, 1b, 2c, 2e);
    c. listing safety procedures for handling uncured and cured fabrics (1a, 1b, 2c, 2e).
3. Demonstrate the ability to identify and select composite materials by
    a. listing composite repair materials (1a, 1b);
    b. selecting composite repair materials for various composite structures (1a, 1b, 2c, 2e).
4. Identify composite repair tools and equipment by
    a. identifying hand tools used in the repair of composite structures (1a, 1b, 2c, 2e);
    b. identifying shop equipment used in the repair of composite structures (1a, 1b, 2c, 2e).
5. Describe composite curing systems by
    a. explaining vacuum bagging (1a, 1b);
    b. explaining hot bonding (1a, 1b);
    c. explaining cure cycle (1a, 1b).
6. Demonstrate an understanding of the process for inspection of bonded structures by
    a. inspecting/testing composite laminated primary and secondary structures (1a, 1b, 2c, 2e);
    b. identifying different types of composite structure damage (1a, 1b, 2c);
    c. identifying classes of composite structure damage, including lightning strikes and prevention of lightning strikes (1a, 1b, 2c, 2e).
7. Repair composite and laminated primary and secondary structures by
    a. removing and inspecting fiberglass, plastics, honeycomb, composite, and laminated primary and secondary structures (1a, 1b, 2c, 2e);
    b. testing and repairing fiberglass, plastics, honeycomb, composite, and laminated primary and secondary structures (1a, 1b, 2c, 2e).

AERM 1303 - Shop Practices

General

Course Key
317

Course Rubric
AERM

Course Number
1303

Course Title
Shop Practices

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). An introduction to shop safety, the correct use of hand tools, equipment, and precision measurement, identification of aircraft hardware, and the fabrication of fluid lines and tubing. Emphasis on procedures for testing, heat treating, and inspection of aircraft structures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform basic shop safety, shop operations, and precision measurement procedures; identify and select nondestructive testing methods; perform nondestructive testing and heat treating procedures; identify and select aircraft hardware and materials; fabricate and install fluid lines and fittings; and inspect welds.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the use of general hand tools, shop tools and tools used for precision measurements by
    a. identifying general mechanics' tools (1a, 1b, 2c, 2e);
    b. identifying shop tools (1a, 1b, 2c, 2e);
    c. explaining the care of hand and shop tools (1a, 1b, 2c, 2e);
    d. demonstrating the use of hand and shop tools (1a, 1b, 2c, 2e);
    e. explaining the care, use, and storage of precision measurement tools (1a, 1b, 2c, 2e);
    f. demonstrating the use of precision measurement tools (1a, 1b, 2c, 2e).
2. Demonstrate the ability to fabricate and install rigid fluid lines and fittings by
    a. making bends in rigid tubing in accordance with accepted industry practices (1a, 1b, 2c, 2e);
    b. forming a bead on a rigid tube (1a, 1b, 2c, 2e);
    c. forming a flare on a rigid tube (1a, 1b, 2c, 2e);
    d. identifying defects in rigid tubing (1a, 1b, 2c, 2e);
    e. installing a section of rigid tubing in a system (1a, 1b, 2c, 2e);
    f. performing an operational check of the system after installation (1a, 1b, 2c, 2e).
3. Demonstrate the ability to fabricate and install a flexible hose assembly by
    a. identifying and selecting flexible hose materials (1a, 1b, 2c);
    b. selecting flexible hose end fittings from stock (1a, 1b, 2c);
    c. fabricating a flexible hose to specification (1a, 1b, 2c, 2e);
    d. installing a flexible hose assembly in a system (1a, 1b, 2c, 2e);
    e. performing an operational check of the system after installation (1a, 1b, 2c, 2e).
4. Demonstrate the ability to identify and select aircraft bolts and nuts for specific applications by
    a. determining the required bolt length, diameter, shank, and head style for specific applications (1a, 1b, 2c);
    b. installing aircraft bolts with appropriate washer and nut combinations (1a, 1b, 2c, 2e);
    c. installing torque and safety installed bolts and nuts in accordance with specifications (1a, 1b, 2c, 2e).
5. Demonstrate the ability to select metallic aircraft structural materials by
    a. identifying samples of various family groups of aluminum alloy (1a, 1b, 2c);
    b. selecting appropriate aluminum alloys for specified aircraft applications (1a, 1b, 2c);
    c. identifying steel alloys (1a, 1b, 2c);
    d. identifying SAE code markings (1a, 1b, 2c);
    e. interpreting SAE coding from various samples (1a, 1b, 2c).
6. Demonstrate the ability to identify and select aircraft rivets by
    a. identifying rivets by physical characteristics (head style and application) (1a, 1b, 2c);
    b. identifying rivets by alloy (1a, 1b, 2c);
    c. identifying rivets by dimensions (1a, 1b, 2c);
    d. identifying rivets by type letter, designating strength characteristics, when appropriate (1a, 1b, 2c).
7. Determine the suitability of materials for aircraft firewalls and exhaust shrouds by

a. using pertinent technical reference information to illustrate the suitability of materials for firewalls and exhaust shrouds (1a, 1b, 2c);

b. identifying samples of materials suitable for use in aircraft firewalls and exhaust shrouds (1a, 1b, 2c).

8. Demonstrate the ability to identify aircraft control cable by

a. identifying example aircraft cables as to type (I or II) (1a, 1b, 2c);

b. identifying the number of strands, in an example cable (1a, 1b, 2c);

c. identifying the number of wires per strand, in an example cable (1a, 1b, 2c);

d. identifying the material from which an example cable is made (Composition A or Composition B) (1a, 1b, 2c, 2e);

e. identifying whether the cable is preformed or non-preformed cable (MILDTL-83420M or later) (1a, 1b, 2c, 2e).

9. Demonstrate an understanding of basic heat treating processes by

a. discussing the effects of heat treatment (1a, 1b, 2c);

b. identifying aluminum alloy code designation or heat treatability (1a, 1b, 2c);

c. discussing the heat treatment processes and strain relieving (1a, 1b, 2c);

d. discussing annealing copper and steel parts (1a, 1b, 2c).

10. Demonstrate an understanding of nondestructive testing by

a. identifying different types of nondestructive testing methods (1a, 1b, 2c);

b. selecting appropriate nondestructive testing for given materials, parts, or products (1a, 1b, 2c).

11. Demonstrate the ability to perform nondestructive testing procedures by

a. using the dye penetrant inspection method to locate a defect (1a, 1b, 2c, 2e);

b. using the magnetic particle inspection method to locate a defect (1a, 1b, 2c, 2e);

c. using the eddy current inspection method to locate a defect (1a, 1b, 2c, 2e);

d. using the ultrasonic inspection method to locate a defect (1a, 1b, 2c, 2e).

12. Demonstrate the ability to perform checks and inspections on welded assemblies by

a. verifying that proper operations were used to make welds in sample assemblies (1a, 1b, 2c, 2e);

b. inspecting welded assemblies for failed welds (cracks and/or blow holes) (1a, 1b, 2c, 2e).

AERM 1310 - Ground Operations

General

Course Key
322

Course Rubric
AERM

Course Number
1310

Course Title
Ground Operations

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). An introductory course in fuels, servicing methods, safety procedures, aircraft movement, securing and operations of aircraft, external power equipment, aircraft cleaning, and corrosion control.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Start, ground operate, move, service, and secure aircraft;
identify typical ground operation hazards and safety; identify and select fuels and cleaning materials; inspect, identify, remove, and treat aircraft corrosion; and perform aircraft cleaning.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Recognize aircraft fuels by

a. differentiating aircraft fuel by its octane rating (1a, 1b, 2c);

b. differentiating aviation gasoline from jet fuel (1a, 1b, 2c);

c. identifying fuel samples taken from an aircraft fuel system (1a, 1b, 2c);

d. verifying that a sample fuel meets the minimum required octane rating for a specific aircraft (1a, 1b, 2c).

2. Perform aircraft ground operation duties by

a. performing aircraft fueling operations (1a, 1b, 2c, 2e);

b. starting an aircraft engine (1a, 1b, 2c, 2e);

c. operating an aircraft engine within its normal operating range (1a, 1b, 2c, 2e);

d. shutting down an operating aircraft engine in accordance with normal engine shutdown procedures (1a, 1b, 2c, 2e);

e. connecting an auxiliary electrical power unit to an aircraft (1a, 1b, 2c, 2e);

f. operating an auxiliary electrical power unit (1a, 1b, 2c, 2e);

g. listing proper fire extinguishing procedures for an aircraft induction system fire (1a, 1b, 2c);

h. directing the ground movement of an aircraft (1a, 1b, 2c, 2e);

i. preparing an aircraft for outside storage (1a, 1b, 2c, 2e);

j. listing safety and hazard concerns during aircraft ground operations (1a, 1b, 2c).

3. Demonstrate an understanding of aircraft cleaning by

a. identifying/selecting aircraft cleaning materials for various aircraft surfaces and parts (1a, 1b, 2c);

b. explaining the procedures for cleaning/washing an aircraft (1a, 1b, 2c);

c. cleaning the exterior of an aircraft (1a, 1b, 2c, 2e);

d. cleaning aircraft windows and rubber products found on aircraft (1a, 1b, 2c, 2e).

4. Differentiate types of corrosion that are found in and on aircraft by

a. identifying types of corrosion (1a, 1b, 2c);

b. identifying areas on aircraft that are prone to corrosion (1a, 1b, 2c);

c. describing methods of preventing and/or controlling corrosion (1a, 1b, 2c);

d. removing corrosion using approved methods (1a, 1b, 2c, 2e);

e. applying protective coating using approved methods (1a, 1b, 2c, 2e).

AERM 1314 - Basic Electricity

General

Course Key
328

Course Rubric	Course Number	Course Title
AERM	1314	Basic Electricity

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). A study of aircraft electrical systems and their requirements including the use of ammeter, voltmeter, and ohmmeter; series and parallel circuits; inductance and capacitance; magnetism; converting alternating current (AC) to direct current (DC); controlling devices; maintenance and servicing of aircraft batteries; and reading and interpreting aircraft electrical diagrams to include solid state devices and logic functions. Fundamentals of safety also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculate and measure capacitance, inductance, electrical power, voltage, current, resistance, and continuity; determine the relationship of voltage, current, and resistance in electrical circuits; interpret aircraft electrical circuit diagrams including solid states devices and logic functions; inspect and service batteries; and perform safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic physics of electricity by
    a. explaining properties of matter (1a, 1b, 2c);
    b. describing the structure of the atom (1a, 1b, 2c);
    c. stating electron movement (1a, 1b, 2c);
    d. explaining static electricity (1a, 1b, 2c);
    e. describing the principles of magnetism (1a, 1b, 2c).
2. Determine the relationship of voltage, current, and resistance in electrical circuits using Ohm's Law by
    a. solving voltage problems in a given electrical circuit (1a, 1b, 2c, 2e);
    b. solving current problems in a given electrical circuit (1a, 1b, 2c, 2e);
    c. solving resistance problems in a given electrical circuit (1a, 1b, 2c, 2e).
3. Demonstrate the ability to use an electrical meter to determine electrical values in an electrical circuit by
    a. measuring current in a given electrical circuit (1a, 1b, 2c, 2e);
    b. measuring resistance in a given electrical circuit (1a, 1b, 2c, 2e);
    c. measuring continuity in a given electrical circuit (1a, 1b, 2c, 2e).
4. Demonstrate the ability to calculate and measure electrical power in an electrical circuit by
    a. calculating the electrical power (watts) produced in a given electrical circuit (1a, 1b, 2c);
    b. using a meter (wattmeter) to measure the electrical power produced in a given electrical circuit (1a, 1b, 2c, 2e).
5. Demonstrate the ability to read and interpret electrical circuit diagrams by
    a. identifying electrical components on wiring schematics and diagrams (1a, 1b, 2c);
    b. identifying solid state devices on wiring schematics and diagrams (1a, 1b, 2c);
    c. identifying logic functions by using wiring schematics and diagrams (1a, 1b, 2c).
6. Demonstrate the ability to select aircraft electrical cable based on factors affecting resistance by
    a. solving at least one problem for proper electrical cable size based on voltage drop (1a, 1b, 2c);
    b. solving at least one problem for proper electrical cable size based on the need to prevent overheating of the cable (1a, 1b, 2c, 2e).
7. Demonstrate an understanding of the construction, use, servicing, and inspection of aircraft lead acid batteries by
    a. describing the construction of an aircraft lead acid battery (1a, 1b, 2c);
    b. explaining the normal operation of an aircraft lead acid battery (1a, 1b, 2c);
    c. describing routine servicing of an aircraft lead acid battery (1a, 1b, 2c);
    d. inspecting and servicing an aircraft lead acid battery (1a, 1b, 2c, 2e).
8. Demonstrate an understanding of the construction, use, servicing, and inspection of aircraft nickel cadmium batteries by
    a. describing the construction of an aircraft nickel cadmium battery (1a, 1b, 2c);
    b. explaining the normal operation of an aircraft nickel cadmium battery (1a, 1b, 2c);
    c. explaining routine servicing, testing, and analyzing of an aircraft nickel cadmium battery (1a, 1b, 2c);
    d. inspecting and servicing an aircraft nickel cadmium battery (1a, 1b, 2c, 2e).
9. Demonstrate a fundamental understanding of alternating current (AC) circuits by
    a. defining AC resistive, capacitive, and resonant circuits (1a, 1b, 2c);
    b. describing transformer functions in AC circuits (1a, 1b, 2c);
    c. calculating inductance in a given AC circuit (1a, 1b, 2c);
    d. measuring inductance in a given AC circuit (1a, 1b, 2c, 2e);
    e. calculating resistance in a given AC circuit (1a, 1b, 2c);
    f. calculating capacitance in a given AC circuit (1a, 1b, 2c);
    g. measuring capacitance in a given AC circuit (1a, 1b, 2c, 2e).

AERM 1315 - Aviation Science

General

Course Key
335

Course Rubric
AERM

Course Number
1315

Course Title
Aviation Science

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Fundamentals of mathematics, physics, and drawings as they apply to aircraft principles and operations as required by the Federal Aviation Administration (FAA) for airframe and powerplant mechanics.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Extract roots and raise numbers to a given power; calculate areas and volumes of various geometrical shapes; solve ratio, proportion, and percentage problems; and perform algebraic operations. Apply the principles of simple machines, sound, fluid, and heat dynamics; basic aerodynamics; aircraft structures; and theory of flight. Interpret aircraft drawings, symbols, and system schematics; draw sketches of repairs and alterations; and interpret blueprint information, graphs, and charts.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to perform arithmetic and algebraic operations involving addition, subtraction, multiplication, and division of positive and negative numbers, with problems including fractions and decimals in the solution by
    a. labeling algebraically dimensions with a plus or minus sign (1a);
    b. solving problems involving addition, subtraction, multiplication, and division of signed numbers (1a).
2. Demonstrate the ability to solve ratio, proportion, and percentage problems by
    a. converting fractional numbers to decimal equivalents (1a);
    b. converting decimals to fractional equivalents (1a);
    c. determining ratios and percentages of number combinations (1a);
    d. computing the compression ratio for an engine cylinder/piston combination (1a).
3. Demonstrate the ability to extract roots and raise numbers to a given power by
    a. computing the square root of a number (1a);
    b. raising a number to a given power (1a).
4. Demonstrate the ability to determine areas and volumes of various geometrical shapes by
    a. determining the area and/or volume of different geometrical shapes (1a);
    b. computing total wing area of different wings (1a);
    c. computing the volume of various baggage compartments and storage tanks (1a);
    d. computing piston displacement of a given engine (1a).
5. Demonstrate a basic understanding of physics by
    a. demonstrating knowledge of Boyle's and Charles's laws dealing with confined gases (1a, 1b, 2c);
    b. demonstrating knowledge of Pascal's law dealing with confined liquids (1a, 1b, 2c);
    c. demonstrating knowledge of Archimedes' principle of buoyancy and Bernoulli's principle of fluid flow through a venture (1a, 1b, 2c);
    d. solving given problems that demonstrate the relationship between pressure, temperature, and humidity (1a, 1b, 2c);
    e. explaining the relationship between temperature and heat (1a, 1b, 2c);
    f. indicating examples of temperature and heat as applied to an aircraft (1a, 1b, 2c);
    g. identifying methods of heat transfer (1a, 1b, 2c);
    h. explaining sound, the speed of sound, and the effects of sound on the human ear (1a, 1b, 2c);
    i. explaining centrifugal/centripetal force (1a, 1b, 2c);
    j. answering questions dealing with work, force, time, distance, and power as they relate to aircraft utility systems and engine performance (1a, 1b, 2c).
6. Demonstrate understanding of the principles of basic aerodynamics, aircraft structures, and the theory of flight by
    a. describing the basic aerodynamic concepts as they apply to aircraft (1a, 1b, 2c);
    b. listing the types of structures found in aircraft construction and manufacturing (1a, 1b, 2c);
    c. describing the theory of flight as it applies to aircraft (1a, 1b, 2c).
7. Demonstrate an understanding of and the ability to use aircraft drawings, to include technician prepared sketches and/or drawings by
    a. recognizing and identifying each kind of line as it appears on an aircraft drawing (1a, 1b, 2c);
    b. interpreting meanings of the lines on an aircraft drawing as they relate to surfaces and details of parts represented by the drawing (1a, 1b, 2c);
    c. locating and interpreting dimensions appearing on aircraft drawings to include the application of limits and tolerances pertaining to a dimension (1a, 1b, 2c);
    d. recognizing the symbols and interpreting information pertaining to identification and location of components with a system depicted on an aircraft drawing (1a, 1b, 2c);
    e. making a sketch or drawing of a major repair or alteration to an aircraft structure (1a, 1b, 2c).
8. Demonstrate an understanding and the ability to use aircraft blueprints, aircraft graphs, and charts by
    a. interpreting information from a given blueprint or diagram (1a, 1b, 2c);
    b. interpreting and applying data obtained from aircraft charts and graphs (1a, 1b, 2c).

AERM 1340 - Aircraft Propellers

General

Course Key
11016

Course Rubric
AERM

Course Number
1340

Course Title
Aircraft Propellers

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Fundamentals of propeller design, function and construction. Skill development in inspection, servicing, and repair of fixed-pitch, constant-speed, and feathering propellers and governing systems. Instruction in removal, balancing, installation of propellers and safety procedures are also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect, check, service, and repair propeller synchronizing systems, ice control systems, fixed-pitch, constant-speed, and feathering propellers and propeller governing systems; identify and select propeller lubricants; balance propellers; repair propeller control system components; install, troubleshoot, and remove propellers; repair aluminum alloy propeller blades; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of aircraft propeller theory and operation by
    a. identifying/explaining the forces that act on an operating propeller (1a, 1b, 2c, 2e);
    b. explaining the advantages associated with the use of a fixed-pitch propeller (1a, 1b, 2c, 2e);
    c. explaining the disadvantages associated with the use of a fixed-pitch propeller (1a, 1b, 2c, 2e);
    d. explaining the advantages associated with the use of a ground adjustable propeller (1a, 1b, 2c, 2e);
    e. explaining the advantages associated with the use of a variable-pitch (constant speed) propeller (1a, 1b, 2c, 2e);
    f. explaining the disadvantages associated with the use of a variable-pitch (constant speed) propeller (1a, 1b, 2c, 2e);
    g. describing the operation and control of hydromatic propellers (1a, 1b, 2c, 2e);
    h. describing the operation of variable-pitch (constant speed) propellers (1a, 1b, 2c, 2e);
    i. describing the operation and control of a counterweight variable-pitch (constant speed) propeller (1a, 1b, 2c, 2e);
    j. describing the operation and control of a non-counterweight variable-pitch (constant speed) propeller (1a, 1b, 2c, 2e);
    k. describing the operation and control of a propeller use with a turbine powerplant (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of aircraft propeller terms and component nomenclature by
    a. identifying fixed-pitch propeller sections and surfaces (1a, 1b, 2c, 2e);
    b. identifying variable-pitch (constant speed) propeller component parts (1a, 1b, 2c, 2e).
3. Interpret airplane/engine/propeller technical information by
    a. locating static limit information for fixed-pitch propellers (1a, 1b, 2c, 2e);
    b. interpreting static limit information for fixed-pitch propellers (1a, 1b, 2c, 2e);
    c. interpreting information associated with static RPM limits for airplane/engine/propeller combinations (1a, 1b, 2c, 2e);
    d. identifying critical range vibrations for an airplane/engine/propeller combination (1a, 1b, 2c, 2e);
    e. explaining the reason for the use of propeller information placards (1a, 1b, 2c, 2e).
4. Demonstrate an understanding of propeller governor components and principles of operation by
    a. describing the action of a propeller governor (1a, 1b, 2c, 2e);
    b. describing the forces which control propeller pitch (1a, 1b, 2c, 2e);
    c. performing operations necessary to match propeller governor rotation to a specific engine (1a, 1b, 2c, 2e);
    d. matching and mounting a propeller governor on an aircraft engine (1a, 1b, 2c, 2e).
5. Perform propeller and propeller system functional checks by
    a. checking the operation of a full feathering, constant speed propeller (1a, 1b, 2c, 2e);
    b. checking the track of a propeller (1a, 1b, 2c, 2e);
    c. measuring propeller blade pitch angles (1a, 1b, 2c, 2e);
    d. adjusting and rigging a propeller governor externally (1a, 1b, 2c, 2e).
6. Perform installation and removal of aircraft propellers by
    a. removing and installing a propeller on a tapered shaft (1a, 1b, 2c, 2e);
    b. removing and installing a propeller on a splined shaft (1a, 1b, 2c, 2e).
7. Perform minor repairs to aluminum propeller blades by
    a. using manufacturers' inspection and repair procedures to identify limits for repair (1a, 1b, 2c, 2e);
    b. determining if damage is repairable and meets the return to service standard (1a, 1b, 2c, 2e);
    c. smoothing nicks, cuts, and scratches in the leading and trailing edges of metal propeller blades (1a, 1b, 2c, 2e).
8. Identify and select propeller lubricants by
    a. locating lubrication information for various propellers (1a, 1b, 2c, 2e);
    b. listing the required lubricants specified in the information (1a, 1b, 2c, 2e);
    c. listing special procedures that must be considered in lubricating different models of propellers (1a, 1b, 2c, 2e).
9. Demonstrate an understanding of the inspection, service, and repair of propeller synchronizing and propeller ice control systems by
    a. identifying components of a propeller anti-icing system (1a, 1b, 2c, 2e);
    b. describing the operation of a propeller anti-icing system (1a, 1b, 2c, 2e);
    c. locating reference information for a propeller synchronizing system (1a, 1b, 2c, 2e);
    d. describing the operation of a propeller synchronizing system (1a, 1b, 2c, 2e).
10. Demonstrate an understanding of the procedures used to balance propellers by
    a. locating information for balancing fixed-pitch and variable-pitch propellers (1a, 1b, 2c, 2e);
    b. describing the procedures for balancing fixed pitch and variable pitch propellers (1a, 1b, 2c, 2e).

AERM 1344 - Aircraft Reciprocating Engines

General

Course Key
339

Course Rubric
AERM

Course Number
1344

Course Title
Aircraft Reciprocating Engines

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). Reciprocating engines, their development, operating principles, and theory. Includes engine instruments, lubrication, and exhaust systems. Also addresses fundamentals of safety.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the components of a reciprocating engine; inspect, troubleshoot, check, service, and repair engine instrument systems; inspect, service, and repair lubrication and exhaust systems; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of reciprocating engine theory, engine types/classification, advantages, and disadvantages by
    a. explaining reciprocating engine (internal combustion) principles (1a, 1b, 2c);
    b. explaining the term horsepower as it relates to aircraft reciprocating engines, including takeoff power, rated (METO) power, and maximum power (1a, 1b, 2c);
    c. explaining mechanical and thermal efficiency associated with reciprocating engines (1a, 1b, 2c);
    d. explaining weight to power ratio considerations in aircraft reciprocating engines (1a, 1b, 2c);
    e. discussing aircraft reciprocating engine reliability and economy of operation (1a, 1b, 2c);
    f. listing aircraft reciprocating engines by types/classification using cylinder arrangement, cubic inch displacement, number of strokes per cycle, and cooling (1a, 1b, 2c);
    g. giving examples of both advantages and disadvantages associated with aircraft reciprocating engines (1a, 1b, 2c).
2. Demonstrate knowledge of reciprocating engine component parts and reciprocating engine systems by
    a. identifying aircraft reciprocating engine systems (1a, 1b, 2c);
    b. explaining how each engine system supports engine operations (1a, 1b, 2c);
    c. identifying component parts of engine systems (1a, 1b, 2c);
    d. identifying nose and power cases of aircraft reciprocating engines (1a, 1b, 2c);
    e. describing loads placed on nose and power cases of aircraft reciprocating engines (1a, 1b, 2c);
    f. identifying (from a group of assemblies provided) a crankshaft and rod assembly that incorporates a dynamic dampener (1a, 1b, 2c);
    g. explaining the purpose of a dynamic dampener (1a, 1b, 2c);
    h. identifying an articulating rod in a master rod assembly (1a, 1b, 2c);
    i. describing the functions of each principal part of a crankshaft assembly (1a, 1b, 2c).
3. Demonstrate knowledge of propeller reduction systems by
    a. describing the reasons for reducing propeller speeds (1a, 1b, 2c);
    b. indicating on a drawing, or on a cutaway propeller reduction gear box trainer, the direction of rotation of each of the gears in a reduction system (1a, 1b, 2c).
4. Demonstrate an understanding of volumetric efficiency by
    a. describing factors affecting volumetric efficiency (1a, 1b, 2c);
    b. describing the purpose of valve overlap (1a, 1b, 2c);
    c. explaining how valve overlap affects engine performance (1a, 1b, 2c);
    d. interpreting a manufacturer's instructions for timing the valves of an engine (1a, 1b, 2c).
5. Demonstrate the ability to locate and use engine firing order information located in engine maintenance manuals or on engine data plates by
    a. explaining the principles that determine the firing order for a given engine (1a, 1b, 2c);
    b. rotating the engine crankshaft, observing the valve rocker arm action, and identifying each cylinder in the order in which it will fire (1a, 1b, 2c).
6. Demonstrate an understanding of the types of bearings used in aircraft reciprocating engines and their serviceability by
    a. identifying, from a display of bearings, each type of bearing that is used in an aircraft reciprocating engine (1a, 1b, 2c);
    b. describing at least one probable location where each bearing would be used within the engine (1a, 1b, 2c);
    c. demonstrating the cleaning procedure and process for each bearing (1a, 1b, 2c);
    d. inspecting each type of bearing (1a, 1b, 2c);
    e. judging whether the bearing is of return to service quality (1a, 1b, 2c).
7. Demonstrate an understanding of the operation of engine accessory drives by
    a. interpreting accessory drive information from the engine maintenance manual for a given engine (1a, 1b, 2c);
    b. drawing or placing arrows on a diagram to illustrate the direction and speed of a given engine's accessory drive gears (1a, 1b, 2c).
8. Demonstrate an ability to use technical data for the selection of approved engine lubricating oil by
    a. referring to regulatory and technical data for a given engine (1a, 1b, 2c);
    b. determining the approved grade (weight) of engine lubricating oil, based on stated environmental conditions (1a, 1b, 2c);
    c. stating the condition/purpose for the use of ashless dispersant oil, and straight mineral oil (1a, 1b, 2c).
9. Demonstrate an understanding of aircraft reciprocating engine lubrication systems and their operation by
    a. describing a typical aircraft reciprocating engine lubrication system (1a, 1b, 2c);
    b. identifying components of an aircraft reciprocating engine lubrication system (1a, 1b, 2c);
    c. describing the operation of an aircraft reciprocating engine lubrication system (1a, 1b, 2c);
    d. troubleshooting lubrication system problems described or introduced by the instructor (1a, 1b, 2c, 2e);
    e. interpreting FAA regulations pertaining to aircraft reciprocating engine lubrication systems (1a, 1b, 2c).
10. Demonstrate the ability to maintain an aircraft reciprocating engine exhaust system by
    a. inspecting an exhaust manifold and exhaust system on a given engine (1a, 1b, 2c);
    b. preparing a written record of condition of the exhaust system (1a, 1b, 2c);
    c. interpreting exhaust system information from the maintenance and repair manual provided by the manufacturer of the exhaust system (1a, 1b, 2c);
    d. describing the permitted repairs for the exhaust system (1a, 1b, 2c);
    e. repairing joints in an exhaust system (1a, 1b, 2c, 2e);
    f. removing, replacing, and adjusting an exhaust system (1a, 1b, 2c, 2e).
11. Recognize aircraft reciprocating engine exhaust systems components, the materials from which they are manufactured, and repair information for those components by
    a. identifying exhaust system components by name (1a, 1b, 2c);
    b. using reference information as a means of determining the materials used in the fabrication of the component (1a, 1b, 2c);
    c. interpreting approved or acceptable information describing the repair of various exhaust system components (1a, 1b, 2c).
12. Demonstrate an understanding of electrical and mechanical engine temperature, pressure, and RPM indicating systems and the ability to maintain those systems by
    a. explaining the purpose of engine temperature indicating systems (1a, 1b, 2c);
    b. identifying component parts to a temperature indicating system (1a, 1b, 2c);
    c. measuring the resistance of thermocouple leads (1a, 1b, 2c, 2e);
    d. determining the causes of erratic indications and inverse readings in thermocouple temperature indicating systems (1a, 1b, 2c, 2e);
    e. determining the cause of an off scale reading in a ratio/meter temperature indicator (1a, 1b, 2c, 2e);
    f. explaining the purpose of a manifold pressure indicating system (1a, 1b, 2c);
    g. explaining the operating principles of a manifold pressure indicating system (1a, 1b, 2c);
    h. identifying the component parts of a manifold pressure indicating system (1a, 1b, 2c);
    i. troubleshooting problems in a manifold pressure indicating system described or introduced by the instructor (1a, 1b, 2c, 2e);
    j. installing and checking the operation of an engine tachometer system (1a, 1b, 2c, 2e);
    k. determining the cause of tachometer system failure after the instructor has introduced a malfunction (1a, 1b, 2c, 2e);
    l. repairing a tachometer system (1a, 1b, 2c, 2e).
13. Demonstrate an understanding of mechanical and electrical fuel flow indicating systems for aircraft reciprocating engines by
    a. drawing a diagram of both a mechanical and an electrical fuel flow indicating system (1a, 1b, 2c);
    b. identifying on each diagram the major parts of each system (1a, 1b, 2c);
    c. explaining the basic principles of troubleshooting, servicing, and repair of each system (1a, 1b, 2c).

AERM 1345 - Airframe Electrical Systems

General

Course Key
343

Course Rubric
AERM

Course Number
1345

Course Title
Airframe Electrical Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). A study of airframe electrical systems including installation, removal, disassembly, and repair of electrical components and related wiring. Fundamentals of electrical safety also addressed. Recommended Prerequisite: AERM-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take AERM-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): AERM 1314

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Repair and inspect aircraft electrical systems components; crimp and splice wiring to manufacturers' specifications; repair pins and sockets of aircraft connectors; install, check, and service airframe electrical wiring, controls, switches, indicators, and protective devices; inspect, check, troubleshoot, service, and repair alternating and direct current electrical systems; inspect, check, and troubleshoot constant speed and integrated speed drive generators; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of and the ability to install, inspect, check and service airframe electrical wiring by
    a. selecting wire of proper gauge for the assigned installation (1a, 1b, 2c);
    b. installing aircraft electrical switches and wiring system components (1a, 1b, 2c);
    c. securing wire by clamps and tying (1a, 1b, 2c);
    d. connecting aircraft electrical components to power supplies through suitable switches and protective devices (1a, 1b, 2c, 2e);
    e. checking each circuit for proper operation (1a, 1b, 2c, 2e);
    f. inspecting electrical terminals and recording acceptability of each with reasons for rejection of unacceptable terminals (1a, 1b, 2c, 2e);
    g. preparing and installing wiring through a conduit and connecting wire cables to terminals at each end (1a, 1b, 2c, 2e);
    h. connecting reset guards on guarded switches and installing breakaway type (safety) wire on the guarded switches (1a, 1b, 2c, 2e);
    i. selecting samples of high tension electrical wire (1a, 1b, 2c, 2e);
    j. describing high tension electrical wire, including its characteristics (1a, 1b, 2c);
    k. selecting samples of low tension electrical wire (1a, 1b, 2c);
    l. describing low tension electrical wire, including its characteristics (1a, 1b, 2c);
    m. selecting samples of thermocouple leads (1a, 1b, 2c);
    n. describing thermocouple wire, including its characteristics (1a, 1b, 2c).
2. Demonstrate the ability to install and check aircraft electrical system components by
    a. installing soldered and crimped terminal and splices on aircraft wire (1a, 1b, 2c, 2e);
    b. checking pins and sockets in connectors for damage (1a, 1b, 2c, 2e);
    c. removing and installing a pin and socket in a connector (1a, 1b, 2c, 2e);
    d. listing the probable causes for switch chatter in solenoid switches and relays (1a, 1b, 2c);
    e. inspecting the installation and checking the circuits of an anti-collision and position light installation (1a, 1b, 2c, 2e);
    f. inspecting and checking the installation and operation of landing lights (1a, 1b, 2c, 2e);
    g. replacing a pre-focused landing light lamp on an aircraft or mockup (1a, 1b, 2c, 2e);
    h. inspecting, checking, and repairing a taxi light installation by replacing a lamp (1a, 1b, 2c, 2e);
    i. inspecting, checking, and making lamp or light assembly replacements for two different types of cockpit or instrument lighting installations (1a, 1b, 2c, 2e);
    j. replacing an inoperative overhead or panel type cockpit lighting fixture (1a, 1b, 2c, 2e);
    k. repairing an instrument light circuit in which the instructor has introduced an open connection (1a, 1b, 2c, 2e);
    l. inspecting electrical equipment installations on shelves or racks, or security of lock-in (1a, 1b, 2c, 2e);
    m. inspecting for integrity of shock mounting (1a, 1b, 2c, 2e);
    n. inspecting for clearance from other equipment (1a, 1b, 2c, 2e);
    o. checking plugin connectors for proper mating and adequate engagement (1a, 1b, 2c, 2e);
    p. determining that all requirements for cooling or ventilation are met (1a, 1b, 2c, 2e);
    q. locating and listing the reference page numbers of the replacement procedure for given aircraft electrical system components (1a, 1b, 2c, 2e);
    r. listing the part numbers of replacement parts and any additional mounting hardware, seals, or gaskets required for replacement of the part (1a, 1b, 2c, 2e).
3. Demonstrate an understanding of and the ability to inspect, check, troubleshoot, service, and repair alternating current (AC) and direct current (DC) aircraft electrical systems by
    a. describing how voltage and current are controlled in DC generator or alternator systems (1a, 1b, 2c);
    b. explaining how equalization of electrical load is accomplished in an aircraft electrical system that utilizes two DC generators or alternators (1a, 1b, 2c);
    c. reading and recording voltage and output for each generator or alternator in an operating system (1a, 1b, 2c, 2e);
    d. adjusting voltage regulators in an operating system (1a, 1b, 2c, 2e);
    e. adjusting load equalization in an operating system (1a, 1b, 2c, 2e);
    f. flashing a generator field (1a, 1b, 2c, 2e);
    g. checking the operation of the reverse current cutout relays (1a, 1b, 2c, 2e);
    h. locating and correcting an open or short circuit malfunction introduced by the instructor (1a, 1b, 2c, 2e);
    i. discussing the methods of providing AC electrical power in an aircraft that has only a DC electrical system (1a, 1b, 2c);
    j. discussing the characteristics and advantages of AC aircraft electrical systems (1a, 1b, 2c);
    k. identifying components and operating elements of a 208/114 Volt AC aircraft electrical system (1a, 1b, 2c);
    l. discussing the inspection, checking, and troubleshooting of constant speed integrated speed drive generators (1a, 1b, 2c).

AERM 1347 - Airframe Auxiliary Systems

General

Course Key
348

Course Rubric
AERM

Course Number
1347

Course Title
Airframe Auxiliary Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). A comprehensive study of airframe auxiliary systems including cabin atmospheric control systems, ice and rain control systems for aircraft and engines, and fire detection and protection systems. Fundamentals of safety procedures also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect, check, troubleshoot, service, and repair heating, cooling, air conditioning, oxygen, and pressurization systems and air cycle machines; inspect, check, troubleshoot, service, and repair airframe ice and rain control systems; inspect, check, and service smoke and carbon monoxide detection systems; and inspect, check, troubleshoot, service, and repair aircraft fire detection and extinguishing systems; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of airframe ice and rain control systems and the ability to perform routine inspection, service, and repair of these systems by
    a. discussing the principles of installation of airframe ice and rain control systems (1a, 1b, 2c);
    b. discussing the operation and checking of deicing and/or anti-icing systems (1a, 1b, 2c);
    c. locating in reference data, for an assigned deicing and/or anti-icing system, the procedures for inspection, checking, and repair of the system (1a, 1b, 2c);
    d. checking the operation of an electrically operated pitot static or static vent anti-icing system (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of smoke and carbon monoxide detection systems and the ability to perform routine inspection, service, and repair of these systems by
    a. discussing the principles of operation of smoke and carbon monoxide detectors (1a, 1b, 2c);
    b. discussing the use of reference data for the inspection, checking, and servicing of smoke and carbon monoxide detection systems (1a, 1b, 2c).
3. Demonstrate an understanding of fire detection systems and the ability to perform routine inspection, service, and repair of these systems by
    a. describing the method of operation of a thermal switch fire detector system (1a, 1b, 2c);
    b. describing the method of operation of a thermocouple fire detector system (1a, 1b, 2c);
    c. describing the method of operation of a continuous loop fire detector system (1a, 1b, 2c);
    d. using a mockup to trace the circuit of a fire detection system (1a, 1b, 2c, 2e);
    e. activating a fire detection system alarm by heat applied to the detector (1a, 1b, 2c, 2e);
    f. locating a malfunction introduced into the fire detection system mockup by the instructor (1a, 1b, 2c, 2e);
    g. correcting malfunctions introduced into the fire detection system mockup by the instructor (1a, 1b, 2c, 2e).
4. Demonstrate an understanding of fire extinguishing systems and the ability to perform routine inspection, service, and repair of these systems by
    a. labeling on a block diagram each major component of a built in fire extinguishing system (1a, 1b, 2c, 2e);
    b. identifying each major component with its unit name, location in the aircraft, and its function (1a, 1b, 2c, 2e);
    c. drawing a simplified diagram of the electrical control circuit identifying components (1a, 1b, 2c);
    d. listing the functions of each component (1a, 1b, 2c);
    e. checking the pressure of the fire extinguishing agent in a fire extinguisher container (1a, 1b, 2c, 2e);
    f. listing possible causes for a fire extinguisher system failure to operate (1a, 1b, 2c).
5. Demonstrate an understanding of cabin atmosphere control systems and the ability to perform routine inspection, service, and repair of these systems by
    a. checking the oxygen system for leakage (1a, 1b, 2c, 2e);
    b. checking the oxygen bottle(s) for pressure (1a, 1b, 2c, 2e);
    c. checking oxygen system pressure (1a, 1b, 2c, 2e);
    d. inspecting oxygen masks for contamination (1a, 1b, 2c, 2e);
    e. discussing the use of reference data for operational checks, inspections, troubleshooting, service, and repair of combustion heaters and exhaust type exchangers (1a, 1b, 2c);
    f. discussing the use of reference data for operational checks, inspections, troubleshooting, service, and repair of aircraft vapor cycle and air cycle cooling systems (1a, 1b, 2c, 2e);
    g. discussing the use of reference data for operational checks, inspections, troubleshooting, service, and repair of cabin pressurization systems (1a, 1b, 2c).
6. Demonstrate an understanding of speed and configuration warning systems and the ability to perform routine inspections, service, and repair of these systems by
    a. describing speed and configuration warning systems (1a, 1b, 2c);
    b. explaining speed and configuration warning systems principles of operation (1a, 1b, 2c);
    c. inspecting, checking, and servicing a speed and configuration warning system (1a, 1b, 2c, 2e).
7. Demonstrate an understanding of electrical brake control systems and the ability to perform routine inspections, service, and repair of these systems by
    a. describing electrical brake control systems (1a, 1b, 2c);
    b. explaining electrical brake control systems principles of operation (1a, 1b, 2c);
    c. inspecting, checking, and servicing an electrical brake control system (1a, 1b, 2c, 2e).
8. Demonstrate an understanding of antiskid systems and the ability to perform routine inspections, service and repair of these systems by
    a. describing aircraft antiskid systems (1a, 1b, 2c);
    b. explaining aircraft antiskid systems principles of operation (1a, 1b, 2c);
    c. inspecting and checking an aircraft antiskid system (1a, 1b, 2c, 2e).
9. Demonstrate an understanding of landing gear position indicating and warning systems and the ability to perform routine inspections, service, and repair of these systems by
    a. checking the operation of the position indicating and warning lights (1a, 1b, 2c, 2e);
    b. inspecting the components of the position indicating and warning system (1a, 1b, 2c, 2e);
    c. troubleshooting and repairing different malfunctions introduced by the instructor (1a, 1b, 2c, 2e).

AERM 1349 - Hydraulic, Pneumatic, and Fuel Systems

General

Course Key
353

Course Rubric	Course Number	Course Title
AERM	1349	Hydraulic, Pneumatic and Fuel Systems

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Skill development in inspecting, servicing, and maintaining aircraft fluid systems including hydraulics, pneumatics, and fuel. Application of basic concepts through detailed maintenance procedures. Fundamentals of safety procedures also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect, check, service, troubleshoot, and repair aircraft fuel and management systems; inspect and repair fuel quantity-indicating systems; inspect, check, service, troubleshoot, and repair hydraulic and pneumatic systems; identify and select hydraulic fluids; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify and select hydraulic fluids by
    a. selecting sample hydraulic fluids by color, odor, and specification number (1a, 1b, 2c, 2e);
    b. selecting hydraulic fluid that will be used to service a given hydraulic system when shown the hydraulic system placard or reservoir data plate (1a, 1b, 2c, 2e);
    c. describing the characteristics of each type of hydraulic fluid (1a, 1b, 2c).
2. Demonstrate the ability to repair hydraulic and pneumatic power system components by
    a. interpreting reference data information that is used to identify parts and materials used to maintain a hydraulic or pneumatic power system (1a, 1b, 2c);
    b. selecting seals for use, using reference data, in ester, petroleum, and vegetable based hydraulic fluids (1a, 1b, 2c);
    c. installing seals in one unit in accordance with the procedures specified in the reference data (1a, 1b, 2c, 2e);
    d. performing an operational test of the unit following assembly (1a, 1b, 2c, 2e);
    e. identifying a hydraulic selector valve (1a, 1b, 2c);
    f. removing the selector valve from the system (1a, 1b, 2c, 2e);
    g. cleaning, inspecting, and reinstalling the selector valve (1a, 1b, 2c, 2e);
    h. checking the hydraulic system for proper operation following the replacement of the selector valve (1a, 1b, 2c, 2e);
    i. identifying a pressure regulator in a hydraulic system (1a, 1b, 2c, 2e);
    j. removing the regulator valve from the system (1a, 1b, 2c, 2e);
    k. cleaning, inspecting, and reinstalling the regulator valve (1a, 1b, 2c, 2e);
    l. checking the hydraulic system for proper operation following the replacement of the regulator valve (1a, 1b, 2c, 2e);
    m. adjusting the hydraulic pressure of the system (1a, 1b, 2c, 2e);
    n. interpreting information about aircraft pneumatic power systems (1a, 1b, 2c);
    o. describing the operation of aircraft pneumatic power systems (1a, 1b, 2c).
3. Demonstrate the ability to inspect, check, service, troubleshoot, and repair hydraulic and pneumatic power systems by
    a. solving hydraulic problems (force/area/pressure) when one of the factors is unknown or values have been changed (1a, 1b, 2c);
    b. explaining the hydraulic principles involved in the solution of the problem (1a, 1b, 2c);
    c. interpreting hydraulic system reference information (1a, 1b, 2c);
    d. diagramming a basic hydraulic system (1a, 1b, 2c);
    e. explaining the relationship, purpose, and function of each component in a hydraulic system (1a, 1b, 2c);
    f. comparing constant pressure and open center types of hydraulic systems (1a, 1b, 2c);
    g. identifying and comparing the components and means of system pressure regulation for each type of system (1a, 1b, 2c, 2e);
    h. inspecting and servicing the hydraulic reservoir with fluid and checking the filter for contamination (1a, 1b, 2c, 2e);
    i. identifying constant and variable displacement hydraulic pumps (1a, 1b, 2c);
    j. describing the operation of constant and variable displacement pumps (1a, 1b, 2c);
    k. inspecting a hydraulic pump drive shaft (1a, 1b, 2c);
    l. removing and installing a pump on the accessory drive pad (1a, 1b, 2c, 2e);
    m. checking the installed pump for proper operation of the system (1a, 1b, 2c, 2e);
    n. removing an accumulator from a hydraulic system (1a, 1b, 2c, 2e);
    o. inspecting the removed accumulator (1a, 1b, 2c, 2e);
    p. installing the accumulator and charging the accumulator with air or nitrogen (1a, 1b, 2c, 2e);
    q. checking the operation of the system (1a, 1b, 2c, 2e);
    r. inspecting the high pressure air valve assemblies and replacing as needed (1a, 1b, 2c, 2e);
    s. comparing the operating characteristics of an operating system with reference information (1a, 1b, 2c, 2e);
    t. detecting low, high, or fluctuating pressures (1a, 1b, 2c, 2e);
    u. describing the probable cause for the observed malfunction (1a, 1b, 2c, 2e);
    v. making necessary adjustments to restore the system to operating tolerances (1a, 1b, 2c, 2e).
4. Demonstrate the ability to inspect, check, service, troubleshoot, and repair aircraft fuel systems and components by
    a. locating and interpreting information from manufacturer's service and repair instructions for inspection, service, and repair of aircraft fuel systems;
    b. describing fuel tank installation (1a, 1b, 2c);
    c. describing fuel tank servicing precautions (1a, 1b, 2c);
    d. inspecting fuel selector valves and pumps (1a, 1b, 2c, 2e);
    e. checking for proper operation of selector valves and pumps (1a, 1b, 2c, 2e);
    f. troubleshooting and repairing fuel selector valves and pumps (1a, 1b, 2c, 2e);
    g. inspecting and troubleshooting fuel quantity indication systems (1a, 1b, 2c, 2e);
    h. listing possible malfunctions of fuel quantity indication systems (1a, 1b, 2c, 2e);
    i. describing the repair that would be undertaken to correct the malfunction (1a, 1b, 2c);
    j. describing the inspection, checking, servicing, and repair of pressure fueling systems (1a, 1b, 2c);
    k. describing the inspection, checking, servicing, and repair of fuel dump systems (1a, 1b, 2c);
    l. performing a fuel transfer and refueling (1a, 1b, 2c).
5. Demonstrate the ability to inspect, check, service, troubleshoot, and repair fuel pressure and temperature warning systems by
    a. operating a fuel system and adjusting the pressure or temperature, and sensing devices (1a, 1b, 2c, 2e);
    b. interpreting service information to identify the cause of an instructor introduced fault in the system (1a, 1b, 2c, 2e);
    c. repairing the system as directed in the service manual (1a, 1b, 2c, 2e).

AERM 1350 - Landing Gear Systems

General

Course Key
359

Course Rubric
AERM

Course Number
1350

Course Title
Landing Gear Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). General principles of inspection, servicing, overhaul, and repair of fixed and retractable landing gear systems and the operation and repair of position and warning systems. Includes coverage of systems, components, operation, and fundamentals of safety procedures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect, service, and repair landing gear, retraction systems, shock struts, brakes, wheels, tires, and steering systems; inspect, check, and service speed and configuration warning systems, electric brake controls, and antiskid systems; inspect, check, troubleshoot, and service landing gear position indicating and warning systems; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to use aircraft manufacturer's instructions to safely raise an aircraft off the hangar floor and return it to the surface without damage or injury to the aircraft, equipment, or student by
    a. utilizing appropriate aircraft jacks and aircraft manufacturer's instructions to jack (raise) an entire aircraft off the ground and return it to the surface (1a, 1b, 2c, 2e);
    b. utilizing appropriate aircraft jacks and aircraft manufacturer's instructions to jack (raise) one wheel off the ground and return it to the surface (1a, 1b, 2c, 2e).
2. Demonstrate the ability to use aircraft manufacturer's instructions to inspect and service aircraft wheels and tire/tube assemblies by
    a. explaining the safety precautions related to wheel and tire servicing (1a, 1b, 2c);
    b. raising an aircraft wheel from the hangar floor (jacking one wheel) (1a, 1b, 2c, 2e);
    c. removing the raised wheel assembly from the aircraft's axle (1a, 1b, 2c, 2e);
    d. demounting the tire from a wheel (1a, 1b, 2c, 2e);
    e. cleaning and inspecting the tire and tube when tube type tire is utilized (1a, 1b, 2c, 2e);
    f. cleaning and inspecting the wheel assembly (1a, 1b, 2c, 2e);
    g. cleaning and inspecting the wheel bearings (1a, 1b, 2c, 2e);
    h. lubricating (re-packing) the wheel bearings (1a, 1b, 2c, 2e);
    i. reinstalling the tire and tube on the wheel assembly (1a, 1b, 2c, 2e);
    j. reinstalling the wheel bearings in the wheel assembly (1a, 1b, 2c, 2e);
    k. reinstalling the wheel assembly on the axle (1a, 1b, 2c, 2e);
    l. adjusting the wheel bearing play (1a, 1b, 2c, 2e);
    m. describing the procedure to be followed when storing tires and other rubber aircraft products (1a, 1b, 2c).
3. Demonstrate the ability to use aircraft manufacturer's instructions to inspect and service mechanical and hydraulic type aircraft brake assemblies by
    a. identifying the components of an aircraft brake system and using reference information to service and operate the system (1a, 1b, 2c);
    b. describing the operation of mechanical and hydraulic aircraft brakes (1a, 1b, 2c);
    c. disassembling an aircraft wheel brake assembly (1a, 1b, 2c);
    d. identifying each component part of the wheel brake assembly (1a, 1b, 2c);
    e. reassembling the wheel brake unit (1a, 1b, 2c);
    f. replacing an actuating cylinder in a wheel brake assembly (1a, 1b, 2c);
    g. servicing, checking, and adjusting clearance on a shoe type, multiple disc or single disc type brake (1a, 1b, 2c);
    h. disassembling a brake master cylinder (1a, 1b, 2c, 2e);
    i. inspecting the component parts of the master cylinder (1a, 1b, 2c, 2e);
    j. replacing seals (as required) in the master cylinder (1a, 1b, 2c, 2e);
    k. reassembling and making an operational check of the master cylinder (1a, 1b, 2c, 2e);
    l. bleeding air out of the hydraulic brake system and performing a functional test on the system after replacement or repair of component parts (1a, 1b, 2c, 2e).
4. Demonstrate the ability to use aircraft manufacturer's instructions to inspect, check, service, and repair aircraft landing gear retraction systems, shock struts, and steering systems by
    a. describing the operation of aircraft oleo shock struts (1a, 1b, 2c);
    b. identifying the component parts of an oleo shock strut (1a, 1b, 2c);
    c. explaining the purpose of a shock strut (1a, 1b, 2c);
    d. disassembling a shock strut (1a, 1b, 2c, 2e);
    e. inspecting the component parts of the shock strut (1a, 1b, 2c, 2e);
    f. installing new seals and reassembling the shock strut (1a, 1b, 2c, 2e);
    g. servicing the strut with fluid and air (nitrogen) (1a, 1b, 2c, 2e).
5. Demonstrate the ability to use aircraft manufacturer's instructions to operate inspect, service, and adjust retractable landing gear by
    a. placing a retractable gear aircraft on jacks and raising the aircraft from the hangar floor (1a, 1b, 2c, 2e);
    b. operating the retractable landing gear (1a, 1b, 2c, 2e);
    c. observing and inspecting the landing gear as it retracts and extends for proper operation (1a, 1b, 2c, 2e);
    d. operating or checking the emergency extension system (1a, 1b, 2c, 2e);
    e. adjusting the landing gear component parts for proper operation as needed (1a, 1b, 2c, 2e);
    f. lowering the aircraft to the hangar floor (1a, 1b, 2c, 2e).
6. Demonstrate the ability to use aircraft manufacturer's instructions to check landing gear alignment by
    a. measuring and recording the caster, camber, toe in and toe out of the landing gear (1a, 1b, 2c, 2e);
    b. judging whether the landing gear is acceptable for return to service (1a, 1b, 2c, 2e);
    c. recommending a method to return the gear alignment to acceptable limits if the alignment is determined to be unacceptable (unairworthy) (1a, 1b, 2c, 2e).
7. Demonstrate the ability to use aircraft manufacturer's instructions to inspect, adjust, and service both nose and tail wheel steering and damping mechanisms by
    a. inspecting nose wheel steering cylinders or steering rods (push/pull tubes) for nose wheel (tricycle gear) aircraft (1a, 1b, 2c, 2e);
    b. inspecting shimmy dampers on nose wheel aircraft (1a, 1b, 2c, 2e);
    c. repairing or servicing repairable shimmy dampers on nose wheel aircraft (1a, 1b, 2c, 2e);
    d. inspecting anti-shimmy devices on tail wheel (conventional landing gear) aircraft (1a, 1b, 2c, 2e);
    e. inspecting coil spring shock units (typically built into tail wheel control cables or connections) (1a, 1b, 2c, 2e).

AERM 1351 - Aircraft Turbine Engine Theory

General

Course Key
366

Course Rubric	Course Number	Course Title
AERM	1351	Aircraft Turbine Engine Theory

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). General principles of theory, history, and servicing of turbine engines to include lubrication, instrumentation, auxiliary power units, and exhaust systems. Fundamentals of safety procedures are also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe turbine engine operation; identify and select lubricants; inspect, service, troubleshoot, and repair turbine engine ignition systems and components, electrical and pneumatic starting systems, engine lubrication system components and systems, unducted systems and components, and turbine-driven auxiliary power units; inspect and repair engine exhaust system components; and inspect, service, troubleshoot, and repair engine thrust reverser systems and related components, electrical and mechanical fluid rate of flow- indicating systems, engine temperature, pressure, and rpm-indicating systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of aircraft turbine engine theory by
    a. making a line drawing or sketch of a turbine engine (1a, 1b, 2c);
    b. labeling the sections of the turbine engine (1a, 1b, 2c);
    c. illustrating the application of Newton's second and third laws of motion (1a, 1b, 2c);
    d. explaining the Brayton cycle (1a, 1b, 2c);
    e. explaining the principles of turbine engine operation (1a, 1b, 2c);
2. Demonstrate an understanding of the characteristics of different turbine compressors by
    a. identifying the different types of compressors (1a, 1b, 2c);
    b. labeling sketches of turbine compressors (1a, 1b, 2c);
    c. explaining the air flow characteristics of each type of compressor (1a, 1b, 2c);
    d. identifying compressor surge and cause for performance loss (1a, 1b, 2c);
3. Demonstrate an understanding of the airflow in diffusers by
    a. locating the diffuser on a turbine engine (1a, 1b, 2c);
    b. explaining the relationship of the diffuser to the engine (1a, 1b, 2c);
4. Demonstrate an understanding of the types and characteristics of combustion chambers by
    a. identifying various types of combustion chambers (1a, 1b, 2c);
    b. explaining the operating characteristics of each type (1a, 1b, 2c);
    c. explaining the airflow and flame paths through each type of combustion chamber (1a, 1b, 2c);
5. Demonstrate an understanding of impulse and reaction blades and thrust reversers by
    a. identifying each type of turbine blade (1a, 1b, 2c);
    b. illustrating, using line drawings or sketches, the characteristics of each type of blade (1a, 1b, 2c);
    c. labeling a drawing of a reverser (1a, 1b, 2c);
    d. describing the gas flow around the exhaust cone of a turbine engine (1a, 1b, 2c);
6. Demonstrate an understanding of fan or bypass turbine engines characteristics by
    a. identifying major components of a fan or bypass turbine engines (1a, 1b, 2c);
    b. explaining air flow in a fan or bypass turbine engines (1a, 1b, 2c);
    c. discussing inspection and troubleshooting of unducted fan systems and components (1a, 1b, 2c);
7. Demonstrate the ability to inspect, check, service, troubleshoot, and repair turbine engine fuel metering systems by
    a. describing the types of fuel control systems used on gas turbine engines (1a, 1b, 2c);
    b. describing the operation of a typical fuel control (1a, 1b, 2c);
    c. interpreting information from the service manual and diagram a fuel control system (1a, 1b, 2c);
    d. identifying major components of a fuel control system (1a, 1b, 2c);
8. Demonstrate the ability to inspect, check, service, troubleshoot, and repair turbine engine lubrication systems by
    a. interpreting information from the service manual and diagramming the oil and scavenging system of a turbine engine (1a, 1b, 2c);
    b. describing the lubrication of a turbine engine system (1a, 1b, 2c);
    c. identifying components of a turbine engine oil scavenging system (1a, 1b, 2c);
    d. troubleshooting turbine engine lubrication system problems (1a, 1b, 2c, 2e);
    e. interpreting FAA regulations pertaining to turbine engine oil systems (1a, 1b, 2c);
9. Demonstrate an understanding of the inspection, checking, servicing, troubleshooting and repair of turbine engine ignition systems and components by
    a. describing the types of ignition systems used on gas turbine engines (1a, 1b, 2c);
    b. describing the operation of each type of ignition system used on gas turbine engines (1a, 1b, 2c);
    c. identifying major components of each type of ignition system used on gas turbine engines (1a, 1b, 2c);
10. Demonstrate an understanding of the principles of operation of turbine engine electrical and pneumatic starting systems by
    a. describing the operating principles for the electrical starting systems used on gas turbine engines (1a, 1b, 2c);
    b. describing the operating principles for pneumatic starting systems used on gas turbine engines (1a, 1b, 2c);
11. Demonstrate the ability to inspect, check, service, troubleshoot, and repair electrical and mechanical engine temperature, pressure, and rpm indicating systems on turbine engines by
    a. describing the operating principles of temperature indicating systems for aircraft engine instrumentation (1a, 1b, 2c);
    b. describing the installation practices for temperature indicating systems for aircraft engine instrumentation (1a, 1b, 2c);
    c. explaining the purpose of engine pressure indicating systems for aircraft engine instrumentation (1a, 1b, 2c);
    d. describing the operating principles of engine pressure indicating systems for aircraft engine instrumentation (1a, 1b, 2c);
    e. describing troubleshooting of engine pressure indicating systems for aircraft engine instrumentation (1a, 1b, 2c);
    f. inspecting, checking, troubleshooting, and repairing engine tachometer systems for aircraft engine instrumentation (1a, 1b, 2c, 2e);
12. Demonstrate an understanding of electrical and mechanical fluid rate of flow indicating systems by
    a. describing electrical and mechanical fluid rate of flow indicating systems (1a, 1b, 2c);
    b. inspecting, checking, troubleshooting, and repairing electrical and mechanical fluid rate of flow indicating systems (1a, 1b, 2c, 2e);

AERM 1357 - Fuel Metering and Induction Systems

General

Course Key
374

Course Rubric
AERM

Course Number
1357

Course Title
Fuel Metering and Induction Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Skill development in fuel metering and induction systems used on reciprocating and turbine engines including fuel metering systems, carburetors, induction systems, heat exchangers, and cooling systems. Fundamentals of safety procedures will also be addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect, check, service, troubleshoot, and repair engine fuel systems and components, turbine engine fuel metering systems and components, electronic engine fuel controls, fuel metering systems and components, reciprocating and turbine engine fuel metering systems, engine ice and rain control systems, heat exchangers, superchargers, turbine engine airflow and temperature control systems, carburetor air intake and induction manifolds, and engine cooling system and components; overhaul carburetors; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to inspect, check, service, troubleshoot, and repair engine fuel systems by
    a. locating information from reference publications (1a, 1b, 2c);
    b. interpreting information from reference publications (1a, 1b, 2c);
    c. describing how FAA regulations govern the strainers, lines, vents, expansion space, and sumps of specific fuel systems (1a, 1b, 2c);
    d. inspecting, checking, servicing, and repairing an engine fuel system (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of engine fuel system components by
    a. locating service information for fuel pumps (1a, 1b, 2c);
    b. interpreting service information for fuel pumps (1a, 1b, 2c);
    c. identifying the parts of fuel pumps (1a, 1b, 2c, 2e);
    d. describing the operation of fuel pumps with rotation vs. flow (1a, 1b, 2c).
3. Demonstrate an understanding of the purpose of auxiliary and fuel boost pumps and the ability to remove and reinstall pumps by
    a. explaining the purpose of auxiliary and fuel boost pumps (1a, 1b, 2c);
    b. describing the operation of various types of pumps (1a, 1b, 2c);
    c. removing and reinstalling an auxiliary or boost pump in the fuel system (1a, 1b, 2c, 2e).
4. Demonstrate the ability to inspect, check, service, troubleshoot, and repair reciprocating engine fuel metering systems by
    a. describing the operation of a carburetor (1a, 1b, 2c);
    b. explaining the effect of variations in temperature, pressure, and humidity on operation of the engine (1a, 1b, 2c);
    c. locating service information (1a, 1b, 2c);
    d. interpreting service information (1a, 1b, 2c);
    e. labeling a sketch of a carburetor, identifying components and systems (1a, 1b, 2c);
    f. describing the operation of each carburetor system (1a, 1b, 2c);
    g. identifying passageways of the carburetor (1a, 1b, 2c, 2e);
    h. tracing the flow of fuel and air (1a, 1b, 2c, 2e);
    i. describing how the fuel air mixture is metered into the engine (1a, 1b, 2c, 2e);
    j. locating service information for filter screens in a fuel metering unit (1a, 1b, 2c);
    k. interpreting service information for filter screen inspection and service (1a, 1b, 2c);
    l. identifying, removing, cleaning, and reinstalling the filter screens in a fuel metering unit (1a, 1b, 2c, 2e).
5. Demonstrate an understanding of the inspection and servicing of float type carburetors and fuel metering system components by
    a. locating service information for a given carburetor (1a, 1b, 2c);
    b. interpreting information from the service information (1a, 1b, 2c);
    c. identifying the venturi in one specific carburetor (1a, 1b, 2c, 2e);
    d. identifying the venturi by size or part number (1a, 1b, 2c, 2e);
    e. describing the function of a venturi in a carburetor (1a, 1b, 2c);
    f. disassembling the carburetor to the degree necessary to identify the air bleed (1a, 1b, 2c, 2e);
    g. describing the operation of the air bleed (1a, 1b, 2c, 2e);
    h. removing the metering jet from the carburetor (1a, 1b, 2c, 2e);
    i. measuring the size of the metering jet (1a, 1b, 2c, 2e);
    j. reinstalling the metering jet (1a, 1b, 2c, 2e);
    k. explaining the purpose of the metering jet (1a, 1b, 2c);
    l. inspecting the floats (1a, 1b, 2c, 2e);
    m. describing the repair of carburetor floats (1a, 1b, 2c);
    n. inspecting the needle and seat assemblies (1a, 1b, 2c, 2e);
    o. determining if the needle and seat assemblies are serviceable (1a, 1b, 2c, 2e);
    p. reinstalling the needle and seat (1a, 1b, 2c, 2e);
    q. adjusting the float level (1a, 1b, 2c, 2e);
    r. identifying the acceleration system in a float type carburetor (1a, 1b, 2c, 2e);
    s. describing the operation of acceleration systems (1a, 1b, 2c).
6. Demonstrate an understanding of the inspection and servicing of pressure type carburetors and direct fuel injection systems by
    a. explaining fuel and airflow through pressure carburetors (1a, 1b, 2c);
    b. identifying a pressure type carburetor (1a, 1b, 2c, 2e);
    c. identifying a direct fuel injection system (1a, 1b, 2c, 2e);
    d. describing the operation of a pressure type carburetor (1a, 1b, 2c);
    e. describing the operation of a direct fuel injection system (1a, 1b, 2c);
    f. comparing the advantages and limitations of both systems (1a, 1b, 2c);
    g. explaining the function of vapor separators and vapor vents (1a, 1b, 2c);
    h. identifying the components and operation of the vapor separator/vent system (1a, 1b, 2c, 2e);
    i. identifying the mixture control components in the pressure carburetor (1a, 1b, 2c, 2e);
    j. describing the operation of the mixture control system (1a, 1b, 2c);
    k. identifying the power enrichment systems (1a, 1b, 2c, 2e);
    l. describing the operation of the power enrichment system in a pressure type carburetor (1a, 1b, 2c);
    m. identifying impact tubes in a pressure carburetor (1a, 1b, 2c, 2e);
    n. explaining the relationship of the impact tubes to the pressure regulator and automatic mixture control unit of the pressure carburetor (1a, 1b, 2c);
    o. explaining the effect of clogged impact tubes on the operation of an engine (1a, 1b, 2c);
    p. explaining the effect of a ruptured fuel or air diaphragm on the operation of an engine (1a, 1b, 2c);
    q. identifying the main discharge nozzle of a pressure carburetor (1a, 1b, 2c, 2e);
    r. describing the operation of the main discharge nozzle (1a, 1b, 2c);
    s. describing possible malfunctions of the main discharge system (1a, 1b, 2c);
    t. locating service information regarding the inspection, checking, and servicing of water injection systems (1a, 1b, 2c);
    u. comparing continuous flow fuel injection and direct cylinder injection systems (1a, 1b, 2c).
7. Demonstrate the ability to inspect, check, service, and repair engine ice and rain control systems by
    a. describing the formation of ice in the induction systems of reciprocating engines (1a, 1b, 2c);
    b. labeling line drawings to illustrate the most common location for the buildup of ice in the induction system (1a, 1b, 2c, 2e);
    c. inspecting, checking, and servicing the heater muff, connecting the duct to the heater box and shutter (1a, 1b, 2c, 2e);
    d. describing the repairs that are approved or acceptable (1a, 1b, 2c);
    e. verifying that the shutter of the heat box has full travel (1a, 1b, 2c, 2e);
    f. explaining the effects of carburetor heat (1a, 1b, 2c).
8. Demonstrate the ability to inspect, check, service, and repair carburetor air intake and induction manifolds by
    a. operating an aircraft engine as a means of recognizing normal operation (1a, 1b, 2c, 2e);
    b. operating the engine after the instructor has introduced a partial obstruction into the air intake duct (1a, 1b, 2c, 2e);
    c. recording the symptoms associated with air intake duct restrictions (1a, 1b, 2c, 2e);
    d. inspecting, checking, servicing, and repairing the system to correct the obstruction in the intake duct (1a, 1b, 2c, 2e);
    e. removing induction screens or filters (1a, 1b, 2c, 2e);
    f. inspecting, servicing, and reinstalling the screen or filter into the engine air intake (1a, 1b, 2c, 2e);
    g. describing the rigging of an alternate intake door (alternate air source) (1a, 1b, 2c).
9. Demonstrate an understanding of the inspection, checking, servicing, troubleshooting, and repair of heat exchangers and superchargers by
    a. describing the inspection of heat exchangers (1a, 1b, 2c);
    b. describing the methods of repair (1a, 1b, 2c);
    c. describing the inspection of turbo superchargers and turbo compound engines (1a, 1b, 2c);
    d. describing the operation of turbo superchargers and turbo compound engines (1a, 1b, 2c);
    e. describing the inspection and repair of superchargers (1a, 1b, 2c);
    f. labeling drawings of the intake manifold systems of supercharged engines and identifying the approximate pressures and temperatures that will exist at various positions in the systems while operating (1a, 1b, 2c).

10. Demonstrate the ability to inspect, check, service, troubleshoot, and repair engine cooling systems by
    a. inspecting, checking, and servicing the cooling system of a completely cowled and baffled engine (1a, 1b, 2c, 2e);
    b. describing the effects of excessive heat, cowl flaps, baffles, augmentors, and fuel/air ratios (1a, 1b, 2c);
    c. identifying sample baffles that are repairable (1a, 1b, 2c, 2e);
    d. stop-drilling and making riveted repairs to baffles (1a, 1b, 2c, 2e);
    e. identifying baffles requiring welded repairs (1a, 1b, 2c, 2e);
    f. making recommendations for repair of baffling (1a, 1b, 2c, 2e);
    g. describing the limits and repairs to cylinder cooling fins in accordance with manufacturer's specifications (1a, 1b, 2c).

AERM 1452 - Aircraft Sheet Metal

General

Course Key
380

Course Rubric
AERM

Course Number
1452

Course Title
Aircraft Sheet Metal

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
7

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-7). Skill development in inspection and repair of sheet metal structures including forming, lay out, and bending of sheet metal and identification, selection, and installation of rivets and fasteners. Fundamentals of safety procedures also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Select, install, and remove special fasteners for metallic structures; inspect and repair sheet metal structures; install conventional rivets; form, lay out, and bend sheet metal; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify conventional aircraft rivets by
    a. identifying aircraft rivets by head style (1a, 1b, 2c);
    b. identifying aircraft rivets by alloy (1a, 1b, 2c);
    c. identifying aircraft rivets by size (1a, 1b, 2c);
    d. identifying factors that determine the use of specific types of rivets in aircraft (1a, 1b, 2c).

2. Demonstrate the ability to perform riveting to FAA and industry standards by
    a. identifying improperly installed or damaged rivets (1a, 1b, 2c, 2e);
    b. removing improperly installed or damaged rivets in accordance with FAA and industry standards (1a, 1b, 2c, 2e);
    c. replacing improperly installed or damaged rivets in accordance with FAA and industry standards (1a, 1b, 2c, 2e);
    d. fabricating various repairs on aluminum structures in accordance with FAA and industry standards (1a, 1b, 2c, 2e).

3. Demonstrate the ability to form, layout and bend sheet metal by
    a. making a joggle using aluminum alloy sheet (1a, 1b, 2c, 2e);
    b. making a sketch of a repair showing a layout (1a, 1b, 2c);
    c. preparing a layout for a bend in aircraft sheet metal (1a, 1b, 2c);
    d. laying out and making bends in sheet metal (1a, 1b, 2c, 2e);
    e. forming an aluminum part (1a, 1b, 2c, 2e).

4. Demonstrate the ability to inspect and repair sheet metal and aircraft structural units by
    a. identifying scratches repairable by burnishing and repair (1a, 1b, 2c, 2e);
    b. selecting and using different numbered and lettered drills (1a, 1b, 2c, 2e);
    c. countersinking holes for flush rivets and flush screws (1a, 1b, 2c, 2e);
    d. determining the next largest size rivet and required hole size (1a, 1b, 2c, 2e);
    e. reaming a hole to the proper diameter (1a, 1b, 2c, 2e);
    f. determining the type of corrosion protection required for assembly of different (dissimilar) aircraft metals (1a, 1b, 2c);
    g. listing the type of coating to be applied to dissimilar metals (1a, 1b, 2c);
    h. describing loads in fuselage and wing structures (1a, 1b, 2c);
    i. describing types of overload failures (1a, 1b, 2c);
    j. inspecting the skin, rivets, and structural members of an aircraft for evidence of damage (1a, 1b, 2c, 2e);
    k. identifying any popped or sheared rivets (1a, 1b, 2c, 2e);
    l. identifying wrinkled or distorted skin (1a, 1b, 2c, 2e);
    m. identifying misaligned or cracked structural members (1a, 1b, 2c, 2e);
    n. identifying any other evidences of overload (1a, 1b, 2c, 2e);
    o. performing minor repairs of real or introduced damage to aircraft skin, stringers, or other structures selected by the instructor (1a, 1b, 2c, 2e).

5. Demonstrate an ability to inspect, check, service, and repair aircraft transparent enclosures (windows), doors, and interior furnishings by
    a. listing types of transparent aircraft enclosure materials (1a, 1b, 2c);
    b. distinguishing characteristics of each type of transparent aircraft enclosure (1a, 1b, 2c);
    c. cleaning plastic windows (1a, 1b, 2c, 2e);
    d. removing shallow scratches and surface crazing from transparent plastic enclosures (1a, 1b, 2c, 2e);
    e. protecting plastic enclosure material during handling, repair, and storage (1a, 1b, 2c, 2e);

f. securing plastic enclosures in aircraft structures (1a, 1b, 2c, 2e);

g. inspecting and checking pressure door seals, windows, seat recline mechanisms, and safety belt installations (1a, 1b, 2c, 2e).

6. Demonstrate the ability to select, install, and remove special fasteners for metallic bonded and composite structures by

a. listing precautions necessary for proper fit when installing special hi shear and pull type rivets (1a, 1b, 2c);

b. listing the stresses that such rivets are designed to resist (1a, 1b, 2c);

c. listing the applications and limitations for the use of special rivets and fasteners in aircraft repair (1a, 1b, 2c);

d. identifying different special rivets and fasteners used in aircraft repair (1a, 1b, 2c);

e. selecting, installing, and removing special fasteners in metallic, bonded, and composite structures (1a, 1b, 2c, 2e).

AERM 1456 - Aircraft Powerplant Electrical

General

Course Key
385

Course Rubric
AERM

Course Number
1456

Course Title
Aircraft Powerplant Electrical

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-6). General principles of theory, operation, and maintenance of powerplant electrical systems including ignition, starting, and fire protection systems. Fundamentals of safety procedures will also be addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Maintain powerplant electrical systems and components; maintain powerplant ignition, starting, and fire protection systems; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to install, check, and service engine electrical wiring, controls, switches, indicators, and protective devices by

a. discussing the types, purpose, applicability and operation of electrical fuses, circuit breakers, and switches used in powerplant electrical systems (1a, 1b, 2c);

b. discussing the selection and installation of aircraft electrical switches and wiring engine electrical components (1a, 1b, 2c);

c. discussing the installation requirements and characteristics for aircraft electrical wiring systems and junction boxes (1a, 1b, 2c);

d. discussing the use of quick disconnect electrical connectors and characteristics of high and low tension electrical wire (1a, 1b, 2c);

e. installing and wiring solenoid operated switches, determining causes and effects of solenoid switch chatter (1a, 1b, 2c, 2e);

f. determining the current required for an engine electrical component (1a, 1b, 2c, 2e);

g. using an AWG chart to select wire of adequate size for the correct voltage drop (1a, 1b, 2c, 2e);

h. installing a suitable switch to energize a component (1a, 1b, 2c, 2e).

2. Demonstrate the ability to repair engine electrical system components by

a. locating procedures for repair of faults identified by the instructor (1a, 1b, 2c, 2e);

b. listing replacement parts (1a, 1b, 2c, 2e);

c. listing all reference pages (1a, 1b, 2c, 2e);

d. listing the part number and nomenclature (1a, 1b, 2c, 2e);

e. reading and recording voltage and output current for each direct current (DC) generator on an operating dual generator aircraft or training aid (1a, 1b, 2c, 2e);

f. adjusting the voltage regulators (1a, 1b, 2c, 2e);

g. adjusting load equalization (1a, 1b, 2c, 2e);

h. flashing a generator field (1a, 1b, 2c, 2e);

i. checking the operation of the reverse current cutout relays (1a, 1b, 2c, 2e);

j. calculating the approximate total continuous load on the aircraft electrical system (all components operating which are designated for continuous operation) (1a, 1b, 2c);

k. determining the maximum permissible continuous electrical load which may be imposed on the aircraft generating system (1a, 1b, 2c);

l. disassembling, inspecting, assembling, and testing a starter (1a, 1b, 2c, 2e);

m. drawing an exploded view of the starter (1a, 1b, 2c, 2e);

n. labeling all component parts (1a, 1b, 2c, 2e).

3. Demonstrate the ability to install, check, service, troubleshoot, and repair engine fire detection and extinguishing systems by

a. testing the operation of an engine fire detection system (1a, 1b, 2c, 2e);

b. checking continuity of the circuit (1a, 1b, 2c, 2e);

c. checking individual fire detectors (1a, 1b, 2c, 2e);

d. locating and correcting a malfunction introduced by the instructor (1a, 1b, 2c, 2e);

e. inspecting all components of the fire extinguishing system (1a, 1b, 2c, 2e);

f. checking for correct operation of the system with the container removed (1a, 1b, 2c, 2e);

g. checking for proper arming and firewall shutdown (1a, 1b, 2c, 2e);

h. checking pressure of the container (1a, 1b, 2c, 2e);

i. listing three possible causes for failure of an engine fire extinguisher system to operate (1a, 1b, 2c).

4. Demonstrate the ability to disassemble, inspect component parts, service, repair, reassemble, and operationally check a magneto and impulse coupling by

a. disassembling a magneto (1a, 1b, 2c, 2e);

b. cleaning all parts (1a, 1b, 2c, 2e);

c. identifying the components (1a, 1b, 2c, 2e);

d. describing the materials and design features of the magneto (1a, 1b, 2c, 2e);

e. testing each of the coils for opens and shorts (1a, 1b, 2c, 2e);

f. testing the condensers and recording the results (1a, 1b, 2c, 2e);

g. comparing the results with the condenser specifications (1a, 1b, 2c, 2e);

h. determining if the condenser meets specifications (1a, 1b, 2c, 2e);

i. reassembling the magneto (1a, 1b, 2c, 2e);

j. maintaining internal timing (1a, 1b, 2c, 2e);

k. verifying E gap position (1a, 1b, 2c, 2e);

l. inspecting the breaker assemblies (1a, 1b, 2c, 2e);

m. selecting a serviceable assembly (1a, 1b, 2c, 2e);

n. installing a breaker assembly in the magneto (1a, 1b, 2c, 2e);

o. adjusting the breaker assembly (1a, 1b, 2c, 2e);

p. completing final assembly of the magneto (1a, 1b, 2c, 2e);

q. disassembling the impulse coupling (1a, 1b, 2c, 2e);

r. cleaning the coupling (1a, 1b, 2c, 2e);

s. inspecting the coupling (1a, 1b, 2c, 2e);

t. reassembling the coupling and installing on the magneto (1a, 1b, 2c, 2e);

u. placing the magneto on a test bench and verifying proper operation (1a, 1b, 2c, 2e).

5. Demonstrate the ability to inspect, service, troubleshoot, and repair reciprocating engine ignition system components by

a. operating and testing a magneto on a test bench (1a, 1b, 2c, 2e);

b. identifying faults in the magneto if present (1a, 1b, 2c, 2e);

c. installing magnetos on an aircraft engine (1a, 1b, 2c, 2e);

d. timing magnetos to the engine (1a, 1b, 2c, 2e);

e. inspecting and using test equipment as a means of determining the serviceability of ignition wiring (1a, 1b, 2c, 2e);

f. inspecting an engine's ignition switch circuitry (1a, 1b, 2c, 2e);

g. checking the operation of the ignition switch by operating the engine (1a, 1b, 2c, 2e);

h. troubleshooting for faults that may be present in the ignition switch circuitry (1a, 1b, 2c, 2e);

i. correcting any faults that are found (1a, 1b, 2c, 2e);

j. identifying a shorted ignition lead through the use of an ignition harness tester (1a, 1b, 2c, 2e);

k. installing a magneto equipped with a booster system on a test bench (1a, 1b, 2c, 2e);

l. operating the magneto and booster system (1a, 1b, 2c, 2e);

m. repairing instructor introduced faults in the booster system (1a, 1b, 2c, 2e);

n. locating spark plug reference information (1a, 1b, 2c);

o. selecting spark plugs that meet specifications, and are approved for a given engine (1a, 1b, 2c);

p. removing spark plugs from an engine (1a, 1b, 2c, 2e);

q. inspecting, reconditioning, and testing the spark plugs (1a, 1b, 2c, 2e);

r. reinstalling the spark plugs in the engine (1a, 1b, 2c, 2e);

s. performing an operation test of the engine (1a, 1b, 2c, 2e).

AERM 2171 - Oral and Practical Exams, General

General

Course Key
15574

Course Rubric
AERM

Course Number
2171

Course Title
Oral and Practical Exams, General

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Technical Local Need

Description
(1-1-0) The oral and practical exams are required for the FAA Mechanic certificate. The exams are scheduled individually with a Designated Mechanic Examiner to meet the requirements for the general portion of the Airframe and/or Powerplant rating. Required Pre-requisite: AERM-1205, AERM-1208, AERM-1303, AERM-1310, AERM-1314, AERM-1315

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take AERM-1205 AERM-1208 AERM-1303 AERM-1310 AERM-1314 AERM-1315;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AERM 1205, AERM 1208, AERM 1303, AERM 1310, AERM 1314, AERM 1315

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate, through an oral examination, knowledge of the subjects identified by Federal Regulation (CFR, Title14, Part 147) as General by

a. responding correctly verbally to a minimum of 70% of the General oral exam questions (1a, 1b, 2a, 2c, 2e).

2. Demonstrate knowledge, through a practical examination, of the subjects identified by Federal Regulation (CFR, Title14, Part 147) as General by

a. performing General practical projects with a minimum of 70% accuracy (1a, 1b, 2a, 2c, 2e).

AERM 2172 - Oral and Practical Exams, Airframe

General

Course Key
14669

Course Rubric
AERM

Course Number
2172

Course Title
Oral and Practical Exams, Airframe

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Technical Local Need

Description
(1-1-0) The oral and practical exams are required for the FAA Mechanic certificate. The exams are scheduled individually with a Designated Mechanic Examiner to meet the requirements for the Airframe portion of the Airframe and/or Powerplant rating. Required pre-requisite: AERM-1141, AERM-1243, AERM-1153, AERM-1254, AERM-1345, AERM-1347, AERM-1349, AERM-1350, AERM-1452, AERM-2231, AERM-2233

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take AERM-1141 AERM-1243 AERM-1153 AERM-1254 AERM-1345 AERM-1347 AERM-1349 AERM-1350 AERM-1452 AERM-2231 AERM-2233
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AERM 1141, AERM 1243, AERM 1153, AERM 1254, AERM 1345, AERM 1347, AERM 1349, AERM 1350, AERM 1452, AERM 2231, AERM 2233

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge, through an oral examination, of the subjects identified by Federal Regulation (CFR, Title14, Part 147) as Airframe by
    a. responding correctly verbally to a minimum of 70% of the Airframe oral exam questions (1a, 1b, 2a, 2c, 2e).
2. Demonstrate knowledge, through a practical examination, of the subjects identified by Federal Regulation (CFR, Title14, Part 147) as Airframe by
    a. performing Airframe practical projects with a minimum of 70% accuracy (1a, 1b, 2a, 2c, 2e).

AERM 2173 - Oral and Practical Exams, Powerplant

General

Course Key
14670

Course Rubric
AERM

Course Number
2173

Course Title
Oral and Practical Exams, Powerplant

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Technical Local Need

Description
(1-1-0). The oral and practical exams are required for the FAA Mechanic certificate. The exams are scheduled individually with a Designated Mechanic Examiner to meet the requirements for the Powerplant portion of the Airframe and/or Powerplant rating. Required pre-requisite: AERM-1340, AERM-1344, AERM-1351, AERM-1357, AERM-1456, AERM-2252, AERM-2351, AERM-2547

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take AERM-1340, AERM-1344, AERM-1351, AERM-1357, AERM-1456, AERM-2252, AERM-2351, AERM-2547
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AERM 1340, AERM 1344, AERM 1351, AERM 1357, AERM 1456, AERM 2252, AERM 2351, AERM 2547

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate, through an oral examination, knowledge of the subjects identified by Federal Regulation (CFR, Title14, Part 147) as Powerplant by
    a. responding correctly verbally to a minimum of 70% of the Powerplant oral exam questions (1a, 1b, 2a, 2c, 2e).
2. Demonstrate, through a practical examination, knowledge of the subjects identified by Federal Regulation (CFR, Title14, Part 147) as Powerplant by
    a. performing Powerplant practical projects with a minimum of 70% accuracy (1a, 1b, 2a, 2c, 2e).

AERM 2231 - Airframe Inspection

General

Course Key
391

Course Rubric
AERM

Course Number
2231

Course Title
Airframe Inspection

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2). In-depth coverage of methods and procedures to perform airframe conformity and air worthiness inspections (including One Hundred Hour Inspections) in accordance with Federal Aviation Regulations and manufacturer's service information. Safety procedures will also be addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform airframe conformity and airworthiness inspections; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to perform airframe conformity and airworthiness inspections required by 14 CFR, Part 91.409, and in accordance with 14 CFR, Part 43.11 and 43.15 by:
    a. identifying and reviewing all documents that will be used to determine conformity (1a, 1b, 2c);
    b. identifying and reviewing all Airworthiness Directives (AD's) that are applicable to the airframe, airframe components, and airframe systems being inspected (1a, 1b, 2c);
    c. identifying, gathering, and preparing all tools and equipment that will be required for the 100 Hour Inspection (1a, 1b, 2c, 2e);
    d. preparing the airframe for inspection (cleaning and opening inspection panels) (1a, 1b, 2c, 2e);
    e. performing the 100 Hour Inspection in accordance with 14 CFR, Part 43.15 (1a, 1b, 2c, 2e);
    f. providing two example maintenance record entries for the 100 Hour Inspection in accordance with 14 CFR, Part 43.11: One entry indicating an airworthy condition; the second entry indicating a completed inspection, with a non-airworthy determination because of discrepancies and non-airworthy items (1a, 1b, 2c, 2e).
2. Review the subjects covered in all AERM General and Airframe courses by:
    a. completing both written and practical projects assigned by the instructor that will review AERM General and Airframe courses (1a, 1b, 2c);
    b. completing practice exams that are designed to prepare the student to successfully pass the General and Airframe FAA written exams (1a, 1b, 2c).

AERM 2233 - Assembly and Rigging

General

Course Key
396

Course Rubric
AERM

Course Number
2233

Course Title
Assembly and Rigging

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2). A comprehensive study of the assembly and rigging of fixed and rotary-wing aircraft including structural alignment, balancing and rigging of control systems, and assembly of aircraft components. Fundamentals of safety procedures are also addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Rig rotary-wing and fixed-wing aircraft; check alignment of structures; assemble aircraft components including flight control surfaces; balance, rig, and inspect movable primary and secondary flight control surfaces; jack aircraft; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the theory, principles, and physics of flight by:
    a. defining the term aerodynamics (1a, 1b, 2c);
    b. defining the term atmosphere (1a, 1b, 2c);
    c. discussing atmospheric pressure (1a, 1b, 2c);
    d. discussing air density (1a, 1b, 2c);
    e. discussing humidity (1a, 1b, 2c);
    f. stating Bernoulli's Principle (1a, 1b, 2c);
    g. explaining Bernoulli's Principle (1a, 1b, 2c);
    h. discussing the related terms motion, velocity, and acceleration;
    i. stating Newton's Laws of Motion (1a, 1b, 2c);
    j. explaining Newton's Laws of Motion (1a, 1b, 2c);
    k. discussing the relationships among the atmosphere, the aircraft, and the forces acting on the aircraft in flight (1a, 1b, 2c);
2. Demonstrate an understanding of terms related to fixed-wing aircraft theory of flight by:
    a. describing airfoils and their shapes (1a, 1b, 2c);
    b. defining the term axes of an aircraft (1a, 1b, 2c);
    c. defining the term angle of attack (1a, 1b, 2c);
    d. defining the term angle of incidence (1a, 1b, 2c);
    e. defining the term center of gravity (1a, 1b, 2c);
    f. defining the term stability (1a, 1b, 2c);
3. Demonstrate an understanding of the nomenclature of fixed-wing aircraft flight controls by:
    a. identifying primary control surfaces (1a, 1b, 2c);
    b. identifying secondary control surfaces (1a, 1b, 2c);
    c. identifying auxiliary control surfaces (1a, 1b, 2c);
4. Demonstrate an understanding of the operation of fixed-wing flight controls by:
    a. explaining the use and operation of primary flight controls (1a, 1b, 2c);
    b. explaining the use and operation of secondary flight controls (1a, 1b, 2c);
    c. explaining the use and operation of auxiliary flight controls (1a, 1b, 2c);
5. Demonstrate the ability to rig fixed-wing flight controls by:
    a. locating the aircraft specifications for a given aircraft (1a, 1b, 2c);
    b. reviewing the specifications for flight control travel data (1a, 1b, 2c);
    c. locating the aircraft maintenance/service instructions (1a, 1b, 2c);
    d. reviewing the maintenance/service instructions for control system rigging (control surface travel) and cable tension (1a, 1b, 2c, 2e);
    e. adjusting (rigging) a specific flight control (assigned by the instructor) in accordance with the aircraft specifications and maintenance/service manual (1a, 1b, 2c, 2e);
6. Demonstrate an understanding of terms related to rotary-wing aircraft theory of flight by:
    a. describing the forces acting on a helicopter in flight and on the ground (1a, 1b, 2c);
    b. describing the term torque as it applies to helicopter rotor systems (1a, 1b, 2c);
    c. describing the term anti-torque rotor (1a, 1b, 2c);

d. defining gyroscopic precession in a rotor system (1a, 1b, 2c);

e. explaining how torque is overcome in a helicopter (1a, 1b, 2c);

f. describing dissymmetry of lift (1a, 1b, 2c);

g. explaining how dissymmetry of lift is overcome in a helicopter (1a, 1b, 2c, 2e);

h. describing rotor blade flapping (1a, 1b, 2c);

i. describing rotor coning (1a, 1b, 2c);

j. describing ground effect (1a, 1b, 2c);

k. explaining autorotation (1a, 1b, 2c);

l. identifying the axes of flight (1a, 1b, 2c);

m. identifying the flight controls used in helicopter operation (1a, 1b, 2c);

n. explaining the flight controls used in helicopter operation (1a, 1b, 2c);

7. Perform a symmetry check on an aircraft by:

a. locating the assembly and symmetry check section of the maintenance/service information for a given aircraft (1a, 1b, 2c, 2e);

b. determining from the maintenance/service information the alignment checks that are to be made (1a, 1b, 2c, 2e);

c. placing the aircraft in the state or condition described in the instructions (1a, 1b, 2c, 2e);

d. making all measurements called out in the instructions and recording all measurements (1a, 1b, 2c, 2e);

e. determining from the measurements if the aircraft symmetry is within the required specifications (1a, 1b, 2c);

8. Demonstrate the ability to inspect and balance a primary and secondary flight control surface by:

a. locating the flight control section of the maintenance/service information for a given aircraft (1a, 1b, 2c, 2e);

b. determining any damage limits permitted for flight controls on the aircraft (1a, 1b, 2c, 2e);

c. inspecting a primary flight control surface that is assigned by the instructor (1a, 1b, 2c, 2e);

d. determining if any damage or wear exists on the primary flight control (1a, 1b, 2c, 2e);

e. determining if the primary flight control is in an airworthy condition (1a, 1b, 2c, 2e);

f. inspecting a secondary flight control surface that is assigned by the instructor (1a, 1b, 2c, 2e);

g. determining if any damage or wear exists on the secondary flight control (1a, 1b, 2c, 2e);

h. determining if the secondary flight control is in an airworthy condition (1a, 1b, 2c, 2e);

i. removing a primary flight control surface that is assigned by the instructor (1a, 1b, 2c, 2e);

j. performing a balance test on the primary flight control (1a, 1b, 2c, 2e);

k. rebalancing the flight control if it is determined to be out of balance limits, or rebalancing a mockup/training aid to demonstrate ability (1a, 1b, 2c, 2e);

l. removing a secondary flight control surface (1a, 1b, 2c, 2e);

m. performing a balance test on the secondary flight control (1a, 1b, 2c, 2e);

n. reinstalling the secondary flight control surface (1a, 1b, 2c, 2e);

o. confirming or adjusting the secondary flight control surface travel (1a, 1b, 2c, 2e);

9. Demonstrate the ability to assemble aircraft components, including flight control surfaces by:

a. removing and installing an aircraft flight control pulley in accordance with the maintenance/service instructions for that activity (1a, 1b, 2c, 2e);

b. inspecting an aircraft cable for proper condition and tension in accordance with the maintenance/service instructions for that activity (1a, 1b, 2c, 2e);

c. removing and installing a flight control surface in accordance with the maintenance/service instructions for that activity (1a, 1b, 2c, 2e);

AERM 2252 - Aircraft Powerplant Inspection

General

Course Key
407

Course Rubric
AERM

Course Number
2252

Course Title
Aircraft Powerplant Inspection

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2). In depth coverage of methods and procedures to perform powerplant conformity and airworthiness inspections (including One Hundred Hour Inspections) in accordance with Federal Aviation Regulations and manufacturer's information. Safety procedures will also be addressed. Required Prerequisite/Corequisite: Consult the Department Chairperson.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Consult the Department Chairperson

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform powerplant conformity and airworthiness inspections; demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to perform conformity and airworthiness inspections on aircraft engines and engine accessories as required by 14 CFR, Part 91.409 (One Hundred Hour), and in accordance with 14 CFR, Part 43.11 and 43.15 by:

a. identifying and reviewing all documents that will be used to determine conformity (1a, 1b, 2c);

b. identifying and reviewing all Airworthiness Directives (AD's) that are applicable to the engine and engine accessories being inspected (1a, 1b, 2c);

c. identifying, gathering, and preparing all tools and equipment that will be required for the One Hundred Hour inspection (1a, 1b, 2c, 2e);

d. preparing the engine and engine accessories for inspection (open and remove cowling, covers, spinner, etc.) (1a, 1b, 2c, 2e);

e. performing the One Hundred Hour inspection in accordance with 14 CFR, Part 43.15 (1a, 1b, 2c, 2e);

f. providing two example maintenance record entries for the One Hundred Hour inspection in accordance with 14 CFR, Part 43.11, one entry indicating an airworthy condition and the second entry indicating a completed inspection with a non-airworthy determination because of discrepancies and non-airworthy items (1a, 1b, 2c, 2e).

2. Demonstrate an understanding of the subjects covered in all AERM Powerplant courses by:

a. completing both written and practical projects assigned by the instructor that will review AERM Powerplant courses (1a, 1b, 2c);

b. completing practice exams that are designed to prepare the student to successfully pass the Powerplant FAA written exams (1a, 1b, 2c);

AERM 2351 - Aircraft Turbine Engine Overhaul

General

Course Key
15575

Course Rubric
AERM

Course Number
2351

Course Title
Aircraft Turbine Engine Overhaul

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Comprehensive study in inspection, disassembly, reassembly, and replacement of gas turbine engines, sections, and components including operational troubleshooting, analysis, and safety. Recommended Prerequisite: AERM-1351

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take AERM-1351;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): AERM 1351

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Overhaul turbine engines; inspect, check, and repair turbine engines; remove, install, and troubleshoot turbine engines; and demonstrate procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to inspect, check, service, repair, and overhaul turbine engine and turbine engine installations by:
    a. locating information on overhauling turbine engines (1a, 1b, 2c);
    b. performing a hot section inspection (1a, 1b, 2c, 2e);
    c. removing a combustion case and liner from an engine (1a, 1b, 2c, 2e);
    d. installing a combustion case and liner into an engine (1a, 1b, 2c, 2e);
    e. locating information contained in the engine maintenance/service instructions for disassembling an engine compressor section (1a, 1b, 2c);
    f. listing the procedures, tools, and safety precautions to be observed when disassembling an engine compressor section (1a, 1b, 2c, 2e);
    g. removing some portion of a compressor section as assigned by the instructor (1a, 1b, 2c, 2e);
    h. reinstalling the compressor section without damage to the engine or components (1a, 1b, 2c, 2e);
    i. identifying a combustion chamber hot spot (1a, 1b, 2c, 2e);
    j. explaining the two causes of hot spots in the outer combustion casting (1a, 1b, 2c);
    k. explaining how the alignment and spray pattern of a fuel nozzle is checked;
    l. identifying damaged turbine blades (1a, 1b, 2c);
2. Demonstrate the ability to troubleshoot, remove, and install a turbine engine by:
    a. describing resolution of maintenance problems through a troubleshooting process (1a, 1b, 2c);
    b. removing a turbine engine from a maintenance stand or mockup (1a, 1b, 2c, 2e);
    c. reinstalling a turbine engine onto a maintenance stand or mockup (1a, 1b, 2c, 2e);
3. Demonstrate the ability to inspect, check, service, troubleshoot, and repair turbine engine fuel metering systems by:
    a. describing the operation of the fuel control unit of a turbine engine from idle speed range through full power (1a, 1b, 2c);
    b. demonstrating the procedure for adjusting the fuel control unit on a mockup or simulated engine (1a, 1b, 2c, 2e);
4. Demonstrate the ability to troubleshoot and adjust turbine engine fuel metering systems and electronic engine fuel controls by:
    a. removing a fuel nozzle from a turbine engine (1a, 1b, 2c, 2e);
    b. reinstalling a fuel nozzle in a turbine engine without damaging the nozzle or components (1a, 1b, 2c, 2e);
    c. explaining the fuel flow through the nozzle (1a, 1b, 2c);
5. Demonstrate the ability to identify and select lubricants (engine lubricating oil) by:
    a. recognizing the containers for lubricants (1a, 1b, 2c, 2e);
    b. identifying types of lubricant (1a, 1b, 2c, 2e);
    c. locating service information specifying the type of lubricant recommended for a specified engine (1a, 1b, 2c, 2e);
    d. explaining the general precautions to be observed when adding or changing engine lubricating oil (1a, 1b, 2c);
6. Demonstrate the ability to inspect, check, service, troubleshoot, and repair engine lubrication systems by:
    a. draining oil, cleaning and inspecting screens, reinstalling all safety drain plugs, and refilling the system with lubricating oil (1a, 1b, 2c, 2e);
    b. explaining the reasons for changing the oil at specified intervals (1a, 1b, 2c);
    c. explaining the significance of metallic particles found in screens and filters (1a, 1b, 2c);
7. Demonstrate the ability to repair and service lubrication system components by:
    a. repairing and servicing instructor selected lubrication components (1a, 1b, 2c, 2e);
    b. adjusting the oil pressure of a turbine engine (1a, 1b, 2c, 2e);
8. Demonstrate the ability to inspect, check, service, troubleshoot, and repair turbine engine ignition systems and components by:
    a. listing methods for troubleshooting an inoperative ignition system (1a, 1b, 2c, 2e);
    b. using information to service and repair a turbine engine ignition system or component (1a, 1b, 2c, 2e);
9. Demonstrate the ability to inspect, service, troubleshoot, and repair turbine engine electrical starting systems by:
    a. inspecting an electrical starting system (1a, 1b, 2c, 2e);
    b. troubleshooting a real or instructor introduced problem in an electrical starting system (1a, 1b, 2c, 2e);
    c. repairing and servicing an electrical starting system (1a, 1b, 2c, 2e);
10. Demonstrate a basic understanding of the inspection, checking, repair, and troubleshooting of turbine driven auxiliary power units, thrust reverser systems and related components, and airflow and temperature control systems on turbine engines by:
    a. discussing auxiliary power units (1a, 1b, 2c);
    b. discussing thrust reverser systems (1a, 1b, 2c);
    c. discussing airflow and temperature control systems (1a, 1b, 2c);

AERM 2359 - Advanced Composite Repair

General

Course Key
14774

Course Rubric
AERM

Course Number
2359

Course Title
Advanced Composite Repair

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) An advanced study and practical application of composite repair, processes, and tooling. Includes complex repair and manufacturing techniques. Required Prerequisites: AERM-1254, AERM-1303, AERM-1315, PLTC-1271, and PLTC-1303

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take AERM-1254 AERM-1303 AERM-1315 PLTC-1303(6323) PLTC-1271;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AERM 1254, AERM 1303, AERM 1315, PLTC 1271, and PLTC 1303

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify fiber and resin science combinations related to advanced composite repair and manufacturing; perform methodologies in fabrication of repair and manufacturing tooling; re-create the geometry of damaged contoured surfaces; perform methods of alternative heat sources for curing; and analyze the relationship between the cure temperature and the placement of thermocouples in order to determine the integrity of repair.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Interpret composite repair data (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of safe composite working practices (1a, 1b, 1c, 2a).
3. Perform an inspection of a composite article for damage (1a, 1b, 1c, 2c, 2e).
4. Identify the materials and their configurations in a damaged composite article (1a, 1b, 2c, 2e).
5. Fabricate repair tooling to recreate the geometry of a damaged surface (1a, 1b, 2a, 2c, 2e).
6. Demonstrate composite bonded repair techniques by:
    a. removing damaged materials (1a, 1b, 2c, 2e);
    b. describing the procedure for removing moisture in a composite article (1a, 1b, 2c);
    c. preparing a surface for bonding (1a, 1b, 2c, 2e);
    d. fabricating repair materials (1a, 1b, 2c, 2e);
    e. bonding replacement materials (1a, 1b, 2c, 2e);
7. Demonstrate composite laminate and/or sandwich structure repair techniques by:
    a. removing damaged ply materials (1a, 1b, 2c, 2e);
    b. removing damaged core materials (1a, 1b, 2c, 2e);
    c. describing the procedure for removing moisture in a composite article (1a, 1b, 2c);
    d. fabricating repair materials (1a, 1b, 2c, 2e);
    e. preparing a surface for bonding (1a, 1b, 2c, 2e);
    f. bonding replacement core materials (1a, 1b, 2c, 2d, 2e);
    g. bonding replacement ply materials (1a, 1b, 2c, 2d, 2e);
8. Perform a composite hot bonded repair by:
    a. installing thermocouples on a composite article prior to bonding (1a, 1b, 2c, 2e);
    b. configuring a heat source and a heat controller for composite bonding (1a, 1b, 2c, 2e);
    c. curing a composite article with heat (1a, 1b, 2c, 2d, 2e);
9. Perform an inspection of a completed composite repair (1a, 1b, 1c, 2c, 2e).

AERM 2547 - Aircraft Reciprocating Engine Overhaul

General

Course Key
11018

Course Rubric
AERM

Course Number
2547

Course Title
Aircraft Reciprocating Engine Overhaul

Semester Credit Hours
5

Lecture Hours
3

Lab Hours
7

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-7). A comprehensive study of reciprocating engine overhaul including measurement and inspection procedures. Instruction in removal and installation, inspections, checks, servicing, repair of engines, and safety procedures will also be addressed. Recommended Prerequisite: AERM-1344

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for pre-requisite.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

Take AERM-1344;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): AERM 1344

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Inspect and repair a radial engine; overhaul reciprocating engines; inspect, check, service, and repair reciprocating engines and engine installations; install, troubleshoot, and remove reciprocating engines; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to overhaul a reciprocating engine by:
    a. recognizing all hazardous conditions and arranging the engine in the work station for an engine overhaul (1a, 1b, 2c, 2e);
    b. locating, reviewing, and itemizing all Airworthiness Directives (ADs) and manufacturers' service bulletins applicable to the engine assigned (1a, 1b, 2c, 2e);
    c. disassembling an engine with the use of appropriate maintenance/service information or a furnished job plan (1a, 1b, 2c, 2e);
    d. tagging, cleaning, and storing all engine parts for inspection or repair (1a, 1b, 2c, 2e);
    e. cleaning, visually inspecting, and identifying defects in specimen crankcase assemblies (1a, 1b, 2c, 2e);
    f. listing probable defects (1a, 1b, 2c, 2e);
    g. checking a crankshaft run out (1a, 1b, 2c, 2e);
    h. measuring rod and main bearing journals (1a, 1b, 2c, 2e);
    i. determining whether the crankshaft meets dimensional tolerance (1a, 1b, 2c, 2e);
    j. identifying serviceable bearings by means of visual and dimensional inspection (1a, 1b, 2c, 2e);
    k. identifying failed or failing bearings within a displayed group of bearings (1a, 1b, 2c, 2e);
    l. identifying where each displayed bearing is located in the engine (1a, 1b, 2c, 2e);
    m. describing how these failed or failing bearings could be detected in an operating engine (1a, 1b, 2c, 2e);
    n. identifying probable failed engine parts from a list of metals that may be found in an oil screen during an engine inspection (1a, 1b, 2c, 2e);
    o. describing the probable cause for the types of failure identified (1a, 1b, 2c, 2e);
    p. inspecting and determining the serviceability of a cylinder (1a, 1b, 2c, 2e);
    q. inspecting the exhaust and intake valve assemblies (1a, 1b, 2c, 2e);
    r. re-facing and reseating exhaust and intake valves (1a, 1b, 2c, 2e);
    s. describing the replacement of valve guides and valve seats (1a, 1b, 2c);
    t. identifying the components of the valve system (valve train) (1a, 1b, 2c, 2e);
    u. inspecting dimensionally the components of the valve system (1a, 1b, 2c, 2e);
    v. disassembling, assembling, and testing zero-lash lifters (1a, 1b, 2c, 2e);
    w. identifying various types of pistons and pin retainers (1a, 1b, 2c, 2e);
    x. removing and reinstalling at least one type of retainer (1a, 1b, 2c, 2e);
    y. inspecting the oil pump (1a, 1b, 2c, 2e);
    z. repairing any damage found in the oil pump (1a, 1b, 2c, 2e);
    aa. inspecting the oil pressure relief valve and oil passages (1a, 1b, 2c, 2e);

2. Demonstrate the ability to reassemble a reciprocating engine by:
    a. reassembling the crankshaft, cam shaft, and crankcase halves (1a, 1b, 2c, 2e);
    b. torqueing all bolts (1a, 1b, 2c, 2e);
    c. checking the valve timing (1a, 1b, 2c, 2e);
    d. describing the construction features of a piston, rings, and cylinder assembly (1a, 1b, 2c);
    e. inspecting each piston, rings, and cylinder assembly (1a, 1b, 2c, 2e);
    f. fitting the pins and rings to the piston (1a, 1b, 2c, 2e);
    g. installing the piston assembly into the cylinder (1a, 1b, 2c, 2e);
    h. attaching and torqueing the cylinder assembly to the crankcase (1a, 1b, 2c, 2e);
    i. adjusting the valve clearances and making valve checks on engines equipped with solid and/or hydraulic lifters (1a, 1b, 2c, 2e);
    j. explaining the relationship between hot and cold clearances (1a, 1b, 2c);
    k. computing the speed of the cam in relation to crankshaft speed when given the number of cam lobes (1a, 1b, 2c);
    l. timing the valves on a radial engine in accordance with the manufacturer's instructions (1a, 1b, 2c, 2e);
    m. explaining the effects of excessive and insufficient valve clearance (1a, 1b, 2c);
    n. re-assembling the engine accessory section, induction system, and accessories if furnished (1a, 1b, 2c, 2e);

3. Demonstrate the ability to remove reciprocating engines from an aircraft and to reinstall the engine onto the aircraft by:
    a. locating the airframe manufacturer's information on removal of the engine (1a, 1b, 2c, 2e);
    b. following the manufacturer's instructions to make the engine ready for removal (1a, 1b, 2c, 2e);
    c. securing the aircraft, supporting the aircraft tail if the aircraft may tip backward when the engine is removed (1a, 1b, 2c, 2e);
    d. attaching a hoist to the engine in accordance with the manufacturer's instructions (1a, 1b, 2c, 2e);
    e. removing the engine from its engine mount (1a, 1b, 2c, 2e);
    f. installing engine on a work or test stand (1a, 1b, 2c, 2e);
    g. identifying dynamic engine mounts (1a, 1b, 2c, 2e);
    h. reinstalling the engine on the aircraft utilizing the same procedures in reverse order that were used to remove the engine (1a, 1b, 2c, 2e);

4. Demonstrate the ability to prepare an engine for run-up after overhaul by:
    a. removing, inspecting, and installing a propeller on the propeller shaft of the engine (1a, 1b, 2c, 2e);
    b. explaining the effects of propeller unbalance on engine operation (1a, 1b, 2c);
    c. explaining critical vibration range in a given engine propeller combination (1a, 1b, 2c);
    d. recognizing propeller unbalance and critical vibration range of propellers;
    e. installing and timing the magnetos to the engine (1a, 1b, 2c);
    f. inspecting and operationally checking the engine control system on the engine or a mock-up and correcting minor defects (1a, 1b, 2c, 2e);
    g. rigging the system if needed (1a, 1b, 2c, 2e);
    h. selecting the proper lubricants for the engine or a specified engine (1a, 1b, 2c, 2e);
    i. describing the need to pre-oil an engine after overhaul and prior to initial run-in of the engine (1a, 1b, 2c);
    j. pre-oiling the engine (1a, 1b, 2c, 2e);

5. Demonstrate the ability to perform an after-overhaul engine run-in and adjustments to bring the engine into airworthy standards and discuss engine operations in general by:
    a. utilizing the correct procedures while starting a newly overhauled engine (1a, 1b, 2c, 2e);
    b. describing the effects and recognizing the symptoms associated with backfire, after-fire, and kickback (1a, 1b, 2c);
    c. explaining the importance of various throttle/mixture positions while starting the engine (1a, 1b, 2c);
    d. performing an ignition check (1a, 1b, 2c, 2e);
    e. describing how to detect a cold cylinder (1a, 1b, 2c);
    f. describing three probable causes for this condition (1a, 1b, 2c);
    g. performing a compression check on the engine (1a, 1b, 2c, 2e);
    h. describing the probable cause of low compression (1a, 1b, 2c);
    i. describing a sequence to isolate a low compression problem (1a, 1b, 2c);
    j. adjusting both the idle speed and mixture to the limits and tolerance prescribed by the manufacturer (1a, 1b, 2c, 2e);
    k. recording the operating oil temperature and pressure (1a, 1b, 2c, 2e);
    l. adjusting the oil pressure to conform to the engine manufacturer's specifications (1a, 1b, 2c, 2e);
    m. describing how to establish take off, climb, and cruise power settings (1a, 1b, 2c);
    n. describing the factors to be considered during prolonged high power operation (1a, 1b, 2c);
    o. showing correct operational sequences for increasing and reducing power output, and controlling RPM (operations with a constant speed propeller) (1a, 1b, 2c);
    p. explaining how master rod bearing loads are affected by increasing manifold pressure (1a, 1b, 2c);
    q. recognizing symptoms that indicate operational distress associated with oil pressure, detonation, exhaust back pressure, leaking primers, or carburetor icing (1a, 1b, 2c);
    r. discussing the inspection and repair of radial engines (1a, 1b, 2c);

AERO 1291 - AET Airframe/Component Strutral Design

General

Course Key
13706

Course Rubric	Course Number	Course Title
AERO	1291	Aerospace Engineering Technology: Airframe and Component Structural Design

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) A study in fixed-wing and helicopter aircraft design to include airframe structures, primary and secondary flight controls, powerplant, and other component areas. Course will analyze efforts on aircraft operating in aerospace environment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect and repair a radial engine; overhaul reciprocating engines; inspect, check, service, and repair reciprocating engines and engine installations; install, troubleshoot, and remove reciprocating engines; and demonstrate safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to overhaul a reciprocating engine by:
    a. recognizing all hazardous conditions and arranging the engine in the work station for an engine overhaul (1a, 1b, 2c, 2e);
    b. locating, reviewing, and itemizing all Airworthiness Directives (ADs) and manufacturers' service bulletins applicable to the engine assigned (1a, 1b, 2c, 2e);
    c. disassembling an engine with the use of appropriate maintenance/service information or a furnished job plan (1a, 1b, 2c, 2e);
    d. tagging, cleaning, and storing all engine parts for inspection or repair (1a, 1b, 2c, 2e);
    e. cleaning, visually inspecting, and identifying defects in specimen crankcase assemblies (1a, 1b, 2c, 2e);
    f. listing probable defects (1a, 1b, 2c, 2e);
    g. checking a crankshaft run out (1a, 1b, 2c, 2e);
    h. measuring rod and main bearing journals (1a, 1b, 2c, 2e);
    i. determining whether the crankshaft meets dimensional tolerance (1a, 1b, 2c, 2e);
    j. identifying serviceable bearings by means of visual and dimensional inspection (1a, 1b, 2c, 2e);
    k. identifying failed or failing bearings within a displayed group of bearings (1a, 1b, 2c, 2e);
    l. identifying where each displayed bearing is located in the engine (1a, 1b, 2c, 2e);
    m. describing how these failed or failing bearings could be detected in an operating engine (1a, 1b, 2c, 2e);
    n. identifying probable failed engine parts from a list of metals that may be found in an oil screen during an engine inspection (1a, 1b, 2c, 2e);
    o. describing the probable cause for the types of failure identified (1a, 1b, 2c, 2e);
    p. inspecting and determining the serviceability of a cylinder (1a, 1b, 2c, 2e);
    q. inspecting the exhaust and intake valve assemblies (1a, 1b, 2c, 2e);
    r. re-facing and reseating exhaust and intake valves (1a, 1b, 2c, 2e);
    s. describing the replacement of valve guides and valve seats (1a, 1b, 2c);
    t. identifying the components of the valve system (valve train) (1a, 1b, 2c, 2e);
    u. inspecting dimensionally the components of the valve system (1a, 1b, 2c, 2e);
    v. disassembling, assembling, and testing zero-lash lifters (1a, 1b, 2c, 2e);
    w. identifying various types of pistons and pin retainers (1a, 1b, 2c, 2e);
    x. removing and reinstalling at least one type of retainer (1a, 1b, 2c, 2e);
    y. inspecting the oil pump (1a, 1b, 2c, 2e);
    z. repairing any damage found in the oil pump (1a, 1b, 2c, 2e);
    aa. inspecting the oil pressure relief valve and oil passages (1a, 1b, 2c, 2e);

2. Demonstrate the ability to reassemble a reciprocating engine by:
    a. reassembling the crankshaft, cam shaft, and crankcase halves (1a, 1b, 2c, 2e);
    b. torqueing all bolts (1a, 1b, 2c, 2e);
    c. checking the valve timing (1a, 1b, 2c, 2e);
    d. describing the construction features of a piston, rings, and cylinder assembly (1a, 1b, 2c);
    e. inspecting each piston, rings, and cylinder assembly (1a, 1b, 2c, 2e);
    f. fitting the pins and rings to the piston (1a, 1b, 2c, 2e);
    g. installing the piston assembly into the cylinder (1a, 1b, 2c, 2e);
    h. attaching and torqueing the cylinder assembly to the crankcase (1a, 1b, 2c, 2e);
    i. adjusting the valve clearances and making valve checks on engines equipped with solid and/or hydraulic lifters (1a, 1b, 2c, 2e);
    j. explaining the relationship between hot and cold clearances (1a, 1b, 2c);
    k. computing the speed of the cam in relation to crankshaft speed when given the number of cam lobes (1a, 1b, 2c);
    l. timing the valves on a radial engine in accordance with the manufacturer's instructions (1a, 1b, 2c, 2e);
    m. explaining the effects of excessive and insufficient valve clearance (1a, 1b, 2c);
    n. re-assembling the engine accessory section, induction system, and accessories if furnished (1a, 1b, 2c, 2e);

3. Demonstrate the ability to remove reciprocating engines from an aircraft and to reinstall the engine onto the aircraft by:
    a. locating the airframe manufacturer's information on removal of the engine (1a, 1b, 2c, 2e);
    b. following the manufacturer's instructions to make the engine ready for removal (1a, 1b, 2c, 2e);
    c. securing the aircraft, supporting the aircraft tail if the aircraft may tip backward when the engine is removed (1a, 1b, 2c, 2e);
    d. attaching a hoist to the engine in accordance with the manufacturer's instructions (1a, 1b, 2c, 2e);
    e. removing the engine from its engine mount (1a, 1b, 2c, 2e);
    f. installing engine on a work or test stand (1a, 1b, 2c, 2e);
    g. identifying dynamic engine mounts (1a, 1b, 2c, 2e);
    h. reinstalling the engine on the aircraft utilizing the same procedures in reverse order that were used to remove the engine (1a, 1b, 2c, 2e);

4. Demonstrate the ability to prepare an engine for run-up after overhaul by:
    a. removing, inspecting, and installing a propeller on the propeller shaft of the engine (1a, 1b, 2c, 2e);
    b. explaining the effects of propeller unbalance on engine operation (1a, 1b, 2c);
    c. explaining critical vibration range in a given engine propeller combination (1a, 1b, 2c);
    d. recognizing propeller unbalance and critical vibration range of propellers;
    e. installing and timing the magnetos to the engine (1a, 1b, 2c);
    f. inspecting and operationally checking the engine control system on the engine or a mock-up and correcting minor defects (1a, 1b, 2c, 2e);
    g. rigging the system if needed (1a, 1b, 2c, 2e);
    h. selecting the proper lubricants for the engine or a specified engine (1a, 1b, 2c, 2e);
    i. describing the need to pre-oil an engine after overhaul and prior to initial run-in of the engine (1a, 1b, 2c);
    j. pre-oiling the engine (1a, 1b, 2c, 2e);

5. Demonstrate the ability to perform an after-overhaul engine run-in and adjustments to bring the engine into airworthy standards and discuss engine operations in general by:
    a. utilizing the correct procedures while starting a newly overhauled engine (1a, 1b, 2c, 2e);
    b. describing the effects and recognizing the symptoms associated with backfire, after-fire, and kickback (1a, 1b, 2c);
    c. explaining the importance of various throttle/mixture positions while starting the engine (1a, 1b, 2c);
    d. performing an ignition check (1a, 1b, 2c, 2e);
    e. describing how to detect a cold cylinder (1a, 1b, 2c);
    f. describing three probable causes for this condition (1a, 1b, 2c);
    g. performing a compression check on the engine (1a, 1b, 2c, 2e);
    h. describing the probable cause of low compression (1a, 1b, 2c);
    i. describing a sequence to isolate a low compression problem (1a, 1b, 2c);
    j. adjusting both the idle speed and mixture to the limits and tolerance prescribed by the manufacturer (1a, 1b, 2c, 2e);
    k. recording the operating oil temperature and pressure (1a, 1b, 2c, 2e);
    l. adjusting the oil pressure to conform to the engine manufacturer's specifications (1a, 1b, 2c, 2e);
    m. describing how to establish take off, climb, and cruise power settings (1a, 1b, 2c);
    n. describing the factors to be considered during prolonged high power operation (1a, 1b, 2c);
    o. showing correct operational sequences for increasing and reducing power output, and controlling RPM (operations with a constant speed propeller) (1a, 1b, 2c);
    p. explaining how master rod bearing loads are affected by increasing manifold pressure (1a, 1b, 2c);
    q. recognizing symptoms that indicate operational distress associated with oil pressure, detonation, exhaust back pressure, leaking primers, or carburetor icing (1a, 1b, 2c);
    r. discussing the inspection and repair of radial engines (1a, 1b, 2c);

AGCR 1304 - Intro to Sustainable Agriculture

General

Course Key
16476

Course Rubric
AGCR

Course Number
1304

Course Title
Introduction to Sustainable Agriculture

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) An introduction to the concept of sustainable agriculture, and examine the impact from social, economic, technological, and environmental perspectives. Integration of crop and livestock management, conservation practices, organic practices, and farming techniques to increase agricultural production, efficiency, and profitability.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the principles and strategies of sustainable agriculture, evaluate best sustainable practices for basic soil, crop, watershed, and livestock management; analyze strategies to increase profitability and efficiency; and identify sustainable farming systems and associated careers.

Upon successful completion of this course, students will:

1. Describe the historical context of sustainable agriculture by
   a. explaining the significance of sustainable agriculture from both domestic and global perspectives. (1a)
   b. distinguishing the characteristics of sustainable practices in agriculture production. (1b)
   c. explaining past and current challenges to sustainability in agriculture systems. (1b)
2. Demonstrate an understanding of agriculture systems by
   a. listing and describing differences between small and large scale farms (1a)
   b. listing the pros and cons of monocrop vs diversification in farming systems. (1a)
   c. explaining the real-world challenges of farmers in society(2d).
3. Demonstrate an understanding of sustainable agriculture practices by
   a. Listing and describing soil and water conservation practices (1a).
   b. Listing and describing diversified farming systems that integrate crops and livestock (1a).
   c. Listing and describing organic farming practices and their relationship to sustainable agriculture (1a).
   d. Listing and describing new technologies and their impacts on agricultural production (1a)
4. Demonstrate an understanding of the core principles of sustainability in agriculture by:
   a. Explaining environmental concerns in agriculture (1b, 2d)
   b. Explaining social concerns in agriculture (2d)
   c. Explaining economic concerns in agriculture (2a, 2d)
   d. Explaining technological concerns in agriculture (2d)
5. Demonstrate an understanding of innovative agriculture practices by
   a. Evaluating the history of innovative farmers and farming practices (1a, 1b)
   b. Evaluating current and emerging innovations in farming practices (1a, 2a)
   c. Determining possible solutions for the future of agriculture sustainability (1b, 2d).

AGCR 2418 - Soil Science

General

Course Key
9332

Course Rubric
AGCR

Course Number
2418

Course Title
Soil Science

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Introduction to the physical, chemical, and biological properties of soils. Topics include the relationship between crops and soils, conservation of soil and water resources, and the economic use of fertilizer.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain principles of soil formation and classification; interpret soil physical, chemical, and biological properties; utilize the principles of soil and water conservation; interpret soil nutrient analysis.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply basic chemical functions by:
   a. identifying chemical symbols of elements important to soils (1b);
   b. listing the valence/oxidation number of chemicals (1b);
   c. using the metric system to perform basic measurements (2c);
   d. calculating molar and normal solutions (1a);
   e. calculating parts per million (1a);
   f. using logarithms to calculate pH of solutions (1a);
   g. identifying cations, anions, and radicals (1b);
   h. calculating equivalents and milliequivalents (1a);
2. Demonstrate an understanding of physical and chemical properties of soils by:
   a. applying soil terminology (2c);
   b. explaining soil formation (2c, 2d);
   c. describing soil horizons (2c, 2d);
   d. describing soil texture and structure (2c, 2d);
   e. describing bulk density and particle density (2c, 2d);
   f. explaining soil organic matter and soil life (2c, 2d);
   g. describing soil colloids (2c, 2d);
   h. explaining soil moisture and soil/plant water relations (2c, 2d);
   i. explaining soil reaction and pH (2c, 2d);
   j. explaining soluble salts, cation exchange capacity, and base saturation (2c, 2d);
   k. explaining soil fertility (2c, 2d);
   l. explaining soil and soil water conservation (2c, 2d);
3. Perform basic soil tests by:
   a. identifying and interpreting the properties of a soil using a soil survey (1b, 2c, 2b);
   b. determining soil color (1b, 2c, 2b);
   c. calculating soil texture (1b, 2c, 2b);
   d. calculating soil bulk and particle densities (1b, 2c, 2b);
   e. calculating soil pore space (1b, 2c, 2b);
   f. calculating soil organic matter content (1b, 2c, 2b);
   g. calculating soil moisture properties (1b, 2c, 2b);
   h. measuring and interpreting soil pH and soluble salts (1b, 2c, 2b);
   i. performing and interpreting soil fertility tests (1b, 2c, 2b);

AIRP 1215 - Private Flight

General

Course Key
9553

Course Rubric
AIRP

Course Number
1215

Course Title
Private Flight

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-4) Flight and ground training to prepare student for completion of the Federal Aviation Administration Private Pilot Certificate.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain flight maneuvers and procedures; demonstrate private pilot flight maneuvers; perform cross-country flight; and meet the guidelines of the Federal Aviation Administration Airman Certification Standards for Private Pilot.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required flight maneuvers and procedures by:
    a. manipulating the flight controls of the aircraft to meet the Federal Aviation Administration Practical Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. preparing accurate and detailed flight plans and navigation logs (1a, 1b, 1c, 2a, 2c, 2e);
    c. performing solo local and solo cross county flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. manipulating the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. applying safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    h. operating an aircraft safely in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 1270 - Private Flight, Helicopter

General

Course Key
12439

Course Rubric
AIRP

Course Number
1270

Course Title
Private Flight, Helicopter

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
4

Course Classification
Technical Local Need

Description
(2-0-4) Flight and ground training to prepare the student for the completion of the Federal Aviation Administration private pilot certificate.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain flight maneuvers and procedures; demonstrate private pilot flight maneuvers; perform cross country flight; and meet the guidelines of the Federal Aviation Administration Practical Test Standards.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required flight maneuvers and procedures by:
    a. manipulating the flight controls of the aircraft to meet the Federal Aviation Administration Practical Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. preparing accurate and detailed flight plans and navigation logs (1a, 1b, 1c, 2a, 2c, 2e);
    c. performing solo local and solo cross county flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. manipulating the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. applying safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    h. operating an aircraft safely in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 1255 - Intermediate Flight

General

Course Key
9554

Course Rubric
AIRP

Course Number
1255

Course Title
Intermediate Flight

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
5

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-5) Provides students with flight hours and skills necessary to fulfill cross-country hours required for the Federal Aviation Administration Commercial Pilot Certificate.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Plan and perform cross-country flight necessary for Commercial Pilot Certificate.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Plan and perform cross country flight necessary for commercial pilot rating.
2. Demonstrate proficiency in required flight maneuvers and procedures as outlined in the Commercial Pilot Training Course Outline by:
    a. preparing accurate and detailed flight plans and navigation logs (1a, 1b, 1c, 2a, 2c, 2e);
    b. performing solo local and solo cross county flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. manipulating the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. applying safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    g. operating an aircraft safely in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 1271 - Intermediate Flight, Helicopter

General

Course Key
9922

Course Rubric
AIRP

Course Number
1271

Course Title
Intermediate Flight Helicopter

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
5

Course Classification
Technical Local Need

Description
(2-0-5) Provides students with flight hours and skills necessary to fulfill solo cross-country hours required for the Federal Aviation Administration Commercial Pilot, single engine land, airplane certificate.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Plan and perform cross country flight necessary for commercial pilot rating.
2. Demonstrate proficiency in required flight maneuvers and procedures as outlined in the FAA approved Commercial Pilot Training Course Outline by:
    a. preparing accurate and detailed flight plans and navigation logs (1a, 1b, 1c, 2a, 2c, 2e);
    b. performing solo local and solo cross county flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. manipulating the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. applying safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    g. operating an aircraft safely in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 1301 - Air Navigation

General

Course Key
9555

Course Rubric	Course Number	Course Title
AIRP	1301	Air Navigation

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Instruction in Visual Flight rules navigation in the National Airspace System. Topics include flight computers, plotters, navigation logs and publications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Complete flight plans for cross country flights; demonstrate the use of flight computers; and explain airspace classification as it pertains to the National Airspace System.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the National Airspace System by:
    a. explaining why the National Airspace System is needed (1a, 1b, 2c);
    b. explaining the two categories of airspace (1a, 1b, 2c);
    c. describing Class A, B, C, D, E, G, Other, and Special Use Airspace (1a, 1b, 2c);
    d. identifying the different airspaces on a sectional chart (1a, 1b, 2c);
    e. discussing entry and equipment requirements for each airspace (1a, 1b, 2c);
    f. distinguishing basic VFR weather minimums for each airspace (1a, 1b, 2c);
2. Demonstrate use of flight computers (E6/B) by:
    a. computing pressure altitude (1a, 1b, 2c, 2d, 2e);
    b. computing density altitude (1a, 1b, 2c, 2d, 2e);
    c. computing wind correction angle (1a, 1b, 2c, 2d, 2e);
    d. computing fuel consumption and endurance (1a, 1b, 2c, 2d, 2e);
    e. computing ground speed (1a, 1b, 2c, 2d, 2e);
    f. computing time and distance (1a, 1b, 2c, 2d, 2e);
3. Demonstrate knowledge of Aviation Sectional and Terminal Charts as well as the Airport Facility Directory by:
    a. interpreting the meaning of chart symbol (1a, 1b, 2c);
    b. explaining the appropriate use of navigation charts (1a, 1b, 2c);
    c. determining accurate information for airport services (1a, 1b, 2c);
4. Complete flight plans for cross country flights by:
    a. planning, creating, and filing an FAA flight plan (1a, 1b, 1c, 2a, 2c, 2d);
    b. formulating accurate navigation log (1a, 1b, 1c, 2a, 2c, 2d);
    c. applying appropriate FAA regulations and recommendations (1a, 1b, 1c);

AIRP 1307 - Aviation Meteorology

General

Course Key
11747

Course Rubric	Course Number	Course Title
AIRP	1307	Aviation Meteorology

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Coverage of meteorological phenomena affecting aircraft flight. Topics include basic concepts of aviation meteorology in the study of temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing, and fog. Also includes analysis and use of weather data for flight planning.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the basic atmospheric processes that produce weather in the atmosphere; identify the weather hazards that pilots will encounter associated with flight; utilize multiple methods to receive and analyze weather data; and explain the use of meteorological information to conduct safe flight.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of weather theory by:
    a. describing atmospheric composition, properties, and structure (1a, 1b, 2c);
    b. describing the relationship between atmospheric energy and temperature (1a, 1b, 2c);
    c. explaining how pressure, density, and altitude effect atmospheric conditions (1a, 1b, 2c);
    d. explaining what causes wind and the geographic and atmospheric forces that affect its movement (1a, 1b, 2c);
    e. summarizing vertical motion and atmospheric stability (1a, 1b, 2c);
    f. summarizing atmospheric moisture and its effect on clouds and precipitation (1a, 1b, 2c);
    g. describing atmospheric circulation and its relationship with air masses, fronts, and cyclones (1a, 1b, 2c);
    h. explaining the life cycle of thunderstorms (1a, 1b, 2c);
2. Demonstrate an understanding of weather hazards by:
    a. explaining causes of wind shear and the danger this hazard poses to aircraft (1a, 1b, 2c);
    b. explaining causes and types of turbulence (1a, 1b, 2c);
    c. describing the different types of icing and how to best avoid icing encounters (1a, 1b, 2c);
    d. describing instrument meteorological conditions and their associated hazards (1a, 1b, 2c);
    e. giving examples and explaining less common weather hazards such as volcanic eruptions, space weather hazards, cold climate flying, and stratospheric ozone (1a, 1b, 2c);
3. Demonstrate an understanding of aviation weather services by:
    a. explaining and accurately interpreting each weather chart or forecast as it pertains to its time of issue, valid time/period, usefulness, and pertinent information (1a, 1b, 1c, 2c, 2e);
    b. selecting and accurately interpreting the appropriate weather chart/forecast for flight planning purposes (1a, 1b, 1c, 2c, 2e);
    c. describing the various weather service outlets and how to obtain weather information from these sources (1a, 1b, 1c, 2c, 2e);
    d. describing the process of making a go or no go decision (1a, 1b, 1c, 2c);

AIRP 1313 - Introduction to Aviation

General

Course Key
10497

Course Rubric	Course Number	Course Title
AIRP	1313	Introduction to Aviation

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of the historical development of the aviation industry, including key events in civil, military, and space exploration and an overview of legislation relating to aviation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss the development of civil and military aviation from balloons to space flight; and recall the historical legislation affecting aviation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Analyze the development of civil and military aviation from balloons to space flight; and discuss the historical legislation affecting aviation.
2. Demonstrate knowledge of the development of civil and military aviation from balloons to space flight by:
    a. discussing key events, inventors, and developments that molded the aviation/aerospace industry into what it is today (1a, 1b, 2c);
    b. identifying a variety of aircraft types, categories, and manufacturers (1a, 1b, 2c);
    c. describing the function and role of a variety of jobs other than pilot within the aviation/aerospace industry (1a, 1b, 2c);

AIRP 1317 - Private Pilot Ground School

General

Course Key
11020

Course Rubric	Course Number	Course Title
AIRP	1317	Private Pilot Ground School

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Ground school for the Federal Aviation Administration Private Pilot Certificate, providing the student with the necessary aeronautical knowledge that can be used for Private Pilot Certification. Topics include principles of flight, radio procedures, weather, navigation, aerodynamics, and Federal Aviation Administration regulations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Display the skills necessary for air navigation; explain the aerodynamic factors involved in the operation of aircraft; and meet aeronautical knowledge areas required for the Federal Aviation Administration Private Pilot Practical Test; demonstrate proficiency in knowledge required by the Federal Aviation Administration for the Private Pilot Written Test.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of applicable Federal Aviation Regulations by:
    a. locating applicable regulations and critical information related to a private pilot in the FAR/AIM and FAA advisory circulars (1a, 1b, 2c);
    b. describing private pilot privileges and limitations (1a, 1b, 2c);
    c. recalling and applying appropriate flight operation privileges and limitations (1a, 1b, 2c);
    d. describing accident reporting requirements of the NTSB (1a, 1b, 2c);
    e. describing FAA medical certificates and pilot certificate category and class (1a, 1b, 2c);
    f. identifying aircraft and pilot certificate categories, classes, and types (1a, 1b, 2c);
2. Demonstrate an understanding of air navigation by:
    a. explaining and identifying symbols/markings on aeronautical charts (1a, 1b, 2c);
    b. identifying and describing Class A, B, C, D, E, and G airspace as well as Special Use and Other Airspace in the National Airspace System (1a, 1b, 2c);
    c. distinguishing between variation/deviation and pilotage/dead reckoning (1a, 1b, 2c);
    d. computing time, speed, and distance, plus other basic calculations using an E6/B flight calculator (1a, 1b, 2c, 2d, 2e);
    e. preparing a thorough and accurate flight plan and navigation log using aeronautical charts, plotters, FAA publications, E6/B calculator, and Airplane Operating Handbook (1a, 1b, 1c, 2a, 2c, 2d);
    f. explaining how radio navigation (VOR, GPS, NDB) systems operate and their usefulness in air navigation (1a, 1b, 2c, 2d, 2e);
    g. describing lost procedures and flight diversions (1a, 1b, 2c);
    h. distinguishing hazardous areas and applying proper collision avoidance procedures (1a, 1b, 2c);
    i. describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 2c);
    j. demonstrating effective radio communication procedures (1a, 1b, 2c, 2d, 2e);
    k. identifying and describing different ATC services available to pilots, radio procedures, and sources of flight information (1a, 1b, 2c, 2d, 2e);
3. Demonstrate an understanding of aerodynamics by:
    a. naming and identifying the different components of an aircraft (1a, 1b, 2c);
    b. naming and identifying primary and secondary flight controls systems (1a, 1b, 2c);
    c. explaining the structure of the atmosphere (1a, 1b, 2c);
    d. describing the different theories in the production of lift (1a, 1b, 2c);
    e. describing the four forces of flight (1a, 1b, 2c);
    f. explaining how changes to lift, thrust, drag, and weight affect the aerodynamic principles of an aircraft (1a, 1b, 2c);
    g. summarizing aircraft stability and its effects on aerodynamic principles (1a, 1b, 2c);
    h. explaining how and why an aircraft stalls and spins as well as proper recovery techniques (1a, 1b, 2c);
    i. explaining recognition and avoidance procedures for wake turbulence (1a, 1b, 2c);
    j. describing the effects of density altitude on takeoff and climb performance (1a, 1b, 2c);
    k. computing weight and balance (1a, 1b, 2c);
4. Demonstrate an understanding of aviation weather by:
    a. identifying critical weather situations from the ground and in flight (1a, 1b, 2c);
    b. describing weather theories pertaining to air masses, fronts, atmospheric stability, wind, currents, and thunderstorms (1a, 1b, 2c);
    c. explaining Coriolis force and its effect on our atmosphere (1a, 1b, 2c);
    d. identifying wind shear and describing how to avoid it (1a, 1b, 2c);

e. explaining the procurement and use of aeronautical weather reports and forecasts (1a, 1b, 1c, 2c, 2e);

5. Demonstrate an understanding of Preflight action by:
    a. identifying and decoding appropriate NOTAMs (1a, 1b, 1c, 2c, 2e);
    b. comprehending current and forecasted weather reports and conditions (1a, 1b, 1c, 2c, 2e);
    c. identifying known ATC delays (1a, 1b, 2c);
    d. determining runway lengths at departure and arrival airports (1a, 1b, 2c);
    e. identifying appropriate alternate airports (1a, 1b, 2c);
    f. calculating fuel requirements as outlined in the FARs (1a, 1b, 2c, 2e);
    g. calculating takeoff and landing distances (1a, 1b, 2c, 2e);

6. Demonstrate an understanding of aircraft powerplants, systems, and instruments by:
    a. identifying the make, model, and size of the engine in the aircraft being flown (1a, 1b, 2c, 2d, 2e);
    b. describing the operation of a four stroke engine (1a, 1b, 2c, 2d, 2e);
    c. identifying and describing how the electrical system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    d. identifying and describing how the fuel system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    e. identifying and describing how the anti-ice and/or de-ice system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    f. identifying and describing how the ignition system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    g. identifying and describing how the pneumatic system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    h. identifying and describing how the hydraulic system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    i. identifying and describing how the pitot static system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    j. identifying and describing the operating principles of the altimeter, airspeed indicator, attitude indicator, heading indicator, vertical speed indicator, and turn indicator (1a, 1b, 2c, 2d, 2e);

7. Demonstrate an understanding of flight physiology by:
    a. determining fitness for flight (1a, 1b, 2c);
    b. explaining the physiological effects of flying at high altitudes (1a, 1b, 2c);
    c. explaining the signs, symptoms, and appropriate action for hypoxia, hyperventilation, and carbon monoxide poisoning in flight (1a, 1b, 1c, 2c);
    d. describing illusions in flight and how to overcome their effects (1a, 1b, 1c, 2c);
    e. summarizing the physiology of vision in flight for day and night operations (1a, 1b, 2c);
    f. analyzing human factors in aviation and describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 1c, 2c);

AIRP 1341 - Advanced Air Navigation

General

Course Key
9562

Course Rubric	Course Number	Course Title
AIRP	1341	Advanced Air Navigation

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Skill development in advanced airplane systems and performance including radio navigation and cross-country flight planning. Includes an introduction to instrument flight operations and navigation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Determine aircraft performance factors based on aircraft charts and graphs; explain radio navigational theory; perform cross-country planning using all available information; and evaluate navigational charts for both visual flight rules and instrument flight rules navigation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of radio navigation theory by:
    a. explaining and describing how a VOR works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    b. explaining and describing how an NDB works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    c. explaining and describing how a DME works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    d. explaining and describing how RNAV/GPS works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    e. explaining and describing how and ILS works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    f. explaining and describing the differences between a Simplified Directional Facility and a Localizer Type Directional Air and their use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);

2. Demonstrate an understanding of the Air Traffic Control system and procedures for instrument flight operations by:
    a. describing aircraft navigation and communication equipment (1a, 1b, 2c, 2d, 2e);
    b. applying proper communication procedures and phraseology (1c, 2b, 2c, 2d);
    c. describing the different communication facilities and their role in the U.S. Air Traffic Control system (1a, 1b, 2c, 2d, 2e);
    d. describing and explaining ATC departure, approach, and hold clearances (1a, 1b, 2c, 2d, 2e);
    e. describing and explaining required reporting points and other reporting expectations (1a, 1b, 2c, 2d, 2e);
    f. explaining the use of radar and its importance to instrument flight rules (1a, 1b, 2c, 2d, 2e);
    g. explaining holding procedures (1b, 1c, 2b, 2c, 2d);
    h. explaining procedures for lost communication scenarios (1b, 1c, 2b, 2c, 2d, 2e);

3. Demonstrate knowledge of Aviation sectional and terminal Charts, low/high enroute charts, instrument approach plates, SIDs and STARs, as well as the Airport Facility Directory by:
    a. explaining and identifying symbols/markings on aeronautical charts (1a, 1b, 2c);
    b. identifying and describing Class A, B, C, D, E, and G Airspace as well as Special Use and Other Airspace in the National Airspace System (1a, 1b, 2c);
    c. distinguishing between variation/deviation and pilotage/dead reckoning (1a, 1b, 2c);
    d. explaining the appropriate use of navigation charts (1a, 1b, 2c);
    e. explaining and identifying symbols/markings on low and high en-route charts (1a, 1b, 2c);
    f. explaining and identifying symbols/markings on instrument approach charts (1a, 1b, 2c);
    g. explaining and giving an accurate approach briefing (1a, 1b, 2c);
    h. describing Standard Instrument Departure Procedures (1a, 1b, 2c);
    i. describing Standard Terminal Arrival Routes (1a, 1b, 2c);
    j. determining accurate information for airport services (1a, 1b, 2c);

4. Complete flight plans for IFR cross country flights by:
    a. preparing a thorough and accurate flight plan and navigation log using aeronautical charts, plotters, FAA publications, E6/B Calculator and Airplane Operating Handbook (1a, 1b, 1c, 2a, 2c, 2d);
    b. computing time, speed, and distance plus other basic calculations using an E6/B flight calculator (1a, 1b, 2a, 2c, 2d, 2e);
    c. applying appropriate FAA regulations and recommendations (1a, 1b, 1c);
    d. describing route planning with consideration to MEAs, MOCAs, MORAs, etc. (1a, 1b, 1c, 2a, 2c, 2d);
    e. describing lost communications procedures and flight diversions (1b, 1c, 2b, 2c, 2d, 2e);
    f. describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 2c);
    g. demonstrating effective radio communication procedures (1a, 1b, 2c, 2d, 2e);
    h. identifying and describing different ATC services, weather information, and in flight information available to pilots (1a, 1b, 2c, 2d, 2e);

AIRP 1343 - Aerodynamics

General

Course Key
9563

Course Rubric	Course Number	Course Title
AIRP	1343	Aerodynamics

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Study of the physical laws of flight. Topics include physical terms and the four forces of flight. Aircraft design, stability control, and high-speed flight characteristics are also included.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the four forces of flight and aircraft design concepts; and explain aircraft stability and control factors in all flight regimes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of aircraft structure by:
    a. naming and identifying the major components of an aircraft (1a, 1b, 2c);
    b. naming and identifying the subcomponents of an aircraft (1a, 1b, 2c);
2. Demonstrate an understanding of aircraft flight control systems by:
    a. naming and identifying primary flight controls systems (1a, 1b, 2c);
    b. naming and identifying secondary flight controls systems (1a, 1b, 2c);
3. Demonstrate an understanding of the principles of flight by:
    a. explaining the structure of the atmosphere (1a, 1b, 2c);
    b. calculating pressure and density altitude (1a, 1b, 2c);
    c. relating the effects of nonstandard temperature and pressure to aircraft performance (1a, 1b, 2c);
    d. describing the different theories in the production of lift (1a, 1b, 2c);
4. Demonstrate an understanding of the aerodynamics of flight by:
    a. describing the four forces of flight (1a, 1b, 2c);
    b. explaining how changes to lift, thrust, drag, and weight affect the aerodynamic principles of an aircraft (1a, 1b, 2c);
    c. explaining how wingtip vortices are created and the dangers associated with them (1a, 1b, 2c);
    d. describing ground effect and the dangers associated with it (1a, 1b, 2c);
    e. explaining how and why an aircraft stalls and spins as well as proper recovery techniques (1a, 1b, 2c);
    f. explaining recognition and avoidance procedures for wake turbulence (1a, 1b, 2c);
    g. describing the effects of density altitude on takeoff and climb performance (1a, 1b, 2c, 2d, 2e);
    h. computing weight and balance (1a, 1b, 2c, 2d, 2e);
5. Demonstrate an understanding of aircraft design characteristic by:
    a. describing the 3 axes of an aircraft (1a, 1b, 2c);
    b. explaining aircraft static and dynamic stability and their effects on aerodynamic principles (1a, 1b, 2c);
    c. explaining load factor (1a, 1b, 2c, 2d, 2e);
6. Demonstrate an understanding of high speed aerodynamics by:
    a. explaining subsonic versus supersonic air flow (1a, 1b, 2c);
    b. describing Mach buffet and critical Mach number (1a, 1b, 2c);
    c. explaining coffin corner (1a, 1b, 2c);
    d. explaining high speed flight controls and wing design (1a, 1b, 2c);

AIRP 1345 - Aviation Safety

General

Course Key
11746

Course Rubric	Course Number	Course Title
AIRP	1345	Aviation Safety

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of the fundamentals essential to the safety of flight. A survey of the aviation industry including decision-making factors, accident reporting, accident investigation, air traffic systems, aircraft technologies, and accident case studies.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss and outline risk mitigation and accident prevention through the discussion of case studies; outline the development of early federal legislation that changed the aviation industry; describe possible aviation hazards; explain the National Airspace System and procedures; describe how data is collected and assessed by the federal agencies; evaluate the risk factors related to flight operations; and summarize safety inspection programs.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of early federal legislation that changed aviation history by:
    a. identifying reasons for federal oversight and regulation (1a, 1b, 2c);
    b. describing the federal rule-making process (1a, 1b, 2c);
    c. describing how data is collected and assessed by the Federal Aviation Administration (1a, 1b, 2c);
2. Demonstrate an understanding of risk factors associated with flight operations and situational awareness of possible aviation hazards by:
    a. recalling and analyzing risk factors associated with specific aviation accidents/incidents (1a, 1b, 1c, 2a, 2b, 2c);
    b. analyzing specific aviation accidents/incidents that were the result of pilots losing situational awareness and why this occurred (1a, 1b, 1c, 2a, 2b, 2c);
    c. examining how to avoid previous aviation disasters through crash investigations (1a, 1b, 1c, 2a, 2b, 2c);
    d. comprehending the importance of situational awareness in avoiding aviation hazards (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
3. Explain the United States airspace system and procedures by:
    a. explaining and identifying symbols/markings on aeronautical charts (1a, 1b, 2c);
    b. identifying and describing Class A, B, C, D, E, and G Airspace as well as Special Use and Other Airspace in the National Airspace System (1a, 1b, 2c);
    c. explaining how radio navigation (VOR, GPS, NDB) systems operate and their usefulness in air navigation (1a, 1b, 2c, 2d, 2e);
    d. demonstrating effective radio communication procedures (1a, 1b, 2c, 2d, 2e);
    e. identifying and describing different ATC services available to pilots, radio procedures, and sources of flight information (1a, 1b, 2c, 2d, 2e);
4. Summarize safety inspection programs and concerns by:
    a. explaining and identifying the impact safety inspections programs have had on the aviation industry (1a, 1b, 2c);
    b. comprehending how to develop safety inspection programs at small and large air carriers (1a, 1b, 2c);
    c. identifying areas of concern with next generation aircraft (1a, 1b, 2c);

AIRP 1347 - Human Factors in Aviation

General

Course Key
9558

Course Rubric
AIRP

Course Number
1347

Course Title
Human Factors in Aviation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Instruction in flight physiology, the decision-making process, pilot health maintenance, psychological aspects of flight, human behavior as related to the aircraft flight deck, and aeromedical information of significance to flight crews.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe various aspects of flight physiology; analyze the pilot decision-making process; identify aeromedical factors hazardous to the pilot; and explain basic health maintenance factors.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe various aspects of flight physiology; analyze the pilot decision making process; identify aeromedical factors hazardous to the pilot; and explain basic health maintenance factors (1a, 1b, 1c, 2a, 2b, 2c).
2. Demonstrate an understanding of flight physiology by:
    a. explaining spatial disorientation (1a, 1b, 2c);
    b. describing procedures for overcoming spatial disorientation (1a, 1b, 1c, 2c);
    c. determining fitness for flight (1a, 1b, 2c);
    d. explaining the physiological effects of flying at high altitudes (1a, 1b, 2c);
    e. explaining the signs, symptoms, and appropriate action for hypoxia, hyperventilation, and carbon monoxide poisoning in flight (1a, 1b, 1c, 2c);
    f. describing illusions in flight and how to overcome their effects (1a, 1b, 1c, 2c);
    g. summarizing the physiology of vision in flight for day and night operations (1a, 1b, 2c);
    h. explaining fatigue and its associated dangers (1a, 1b, 2c);
    i. summarizing the importance of proper rest, diet, and professional discipline (1a, 1b, 2c);
    j. explaining the hazardous effects of drugs and alcohol (1a, 1b, 2c);
3. Demonstrate an understanding of aeromedical factors hazardous to the pilot by:
    a. listing and explaining which aeromedical factors are hazardous to the pilot (1a, 1b, 1c, 2a, 2b, 2c);
    b. recalling and analyzing specific aviation accidents/incidents that were the result of pilots not recognizing hazardous aeromedical factors (1a, 1b, 1c, 2a, 2b, 2c);
    c. examining how to avoid previous aviation disasters through crash investigations (1a, 1b, 1c, 2a, 2b, 2c);
    d. comprehending the importance of crew resource management (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. employing desired professional characteristics appropriate for an air carrier flight deck (1c, 2a, 2b, 2c);
4. Demonstrate an understanding of the pilot decision making process by:
    a. demonstrating an understanding of crew resource management (1a, 1b, 1c, 2a, 2b, 2c);
    b. explaining crew communication and coordination (1a, 1b, 1c, 2a, 2b, 2c);
    c. describing human factors leading to accidents or incidents (1a, 1b, 1c, 2a, 2b, 2c);
    d. analyzing human factors in aviation and describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 1c, 2a, 2b, 2c);
    e. describing checklist usage (1a, 1b, 1c, 2a, 2b, 2c);
    f. describing safe and efficient operation of the aircraft (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

AIRP 1451 - Instrument Ground School

General

Course Key
11749

Course Rubric
AIRP

Course Number
1451

Course Title
Instrument Ground School

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) A study of basic instrument radio and navigation fundamentals used in instrument flight. Topics include a description and practical use of navigation systems and instruments, charts used for instrument flight, and Federal Aviation Administration regulations. Recommended Corequisite: AIRP-2250

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take AIRP-2250;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Corequisite(s): AIRP 2250

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain Federal Aviation Administration regulations for Instrument Flight; read and interpret instrument publications; describe the operation of navigation systems; describe the aircraft flight instruments operation; and explain the air traffic control (ATC) procedures and flight physiology related to instrument flight.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of flight physiology by:
    a. explaining spatial disorientation (1a, 1b, 2c);
    b. describing procedures for overcoming spatial disorientation (1a, 1b, 1c, 2c);
    c. determining fitness for flight (1a, 1b, 2c);
    d. explaining the physiological effects of flying at high altitudes (1a, 1b, 2c);
    e. explaining the signs, symptoms, and appropriate action for hypoxia, hyperventilation, and carbon monoxide poisoning in flight (1a, 1b, 1c, 2c);
    f. describing illusions in flight and how to overcome their effects (1a, 1b, 1c, 2c);
    g. summarizing the physiology of vision in flight for day and night operations (1a, 1b, 2c);
2. Demonstrate an understanding of attitude instrument flying by:
    a. describing and applying the control and performance method (1a, 1b, 2c);
    b. describing and applying the primary and supporting method (1a, 1b, 2c);
    c. describing the different scanning techniques (1a, 1b, 2c);
    d. describing and applying rules of thumb (1a, 1b, 2c);
    e. explaining common errors in attitude instrument flying (1a, 1b, 2c);
    f. explaining unusual attitude recovery (1a, 1b, 2c);
    g. explaining compass turns and timed turns (1a, 1b, 2c);
3. Demonstrate an understanding of applicable Federal Aviation Regulations and information in the Aeronautical Information Manual by:
    a. locating and explaining applicable regulations and critical information related to an Instrument Rating in the FAR/AIM and FAA advisory circulars (1a, 1b, 2c);
    b. describing Instrument Rating privileges and limitations (1a, 1b, 2c);
    c. recalling and applying appropriate flight operation privileges and limitations (1a, 1b, 2c);
4. Demonstrate an understanding of aircraft powerplants, systems, and instruments by:
    a. identifying the make, model, and size of the engine in the aircraft being flown (1a, 1b, 2c, 2d, 2e);
    b. identifying and describing how the electrical system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    c. identifying and describing how the fuel system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    d. identifying and describing how the anti-ice and/or de-ice system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    e. identifying and describing how the ignition system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);
    f. identifying and describing how the pneumatic system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

g. identifying and describing how the hydraulic system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

h. identifying and describing how the pitot static system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

i. identifying and describing the operating principles of the altimeter, airspeed indicator, attitude indicator, heading indicator, vertical speed indicator, and turn indicator (1a, 1b, 2c, 2d, 2e);

5. Demonstrate an understanding of the Air Traffic Control system and procedures for instrument flight operations by:

a. describing aircraft navigation and communication equipment (1a, 1b, 2c, 2d, 2e);

b. applying proper communication procedures and phraseology (1c, 2b, 2c, 2d);

c. describing the different communication facilities and their role in the U.S. Air Traffic Control system (1a, 1b, 2c, 2d, 2e);

d. describing and explaining ATC departure, approach, and hold clearances (1a, 1b, 2c, 2d);

e. describing and explaining required reporting points and other reporting expectations (1a, 1b, 2c);

f. explaining the use of radar and its importance to instrument flight rules (1a, 1b, 2c, 2d, 2e);

g. explaining holding procedures (1b, 1c, 2b, 2c, 2d);

h. explaining procedures for lost communication scenarios (1b, 1c, 2b, 2c, 2d);

6. Demonstrate an understanding of IFR Navigation and approaches by use of navigation systems by:

a. explaining and describing how a VOR works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);

b. explaining and describing how an NDB works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);

c. explaining and describing how a DME works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);

d. explaining and describing how RNAV/GPS works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);

e. explaining and describing how an ILS works and its use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);

f. explaining and describing the differences between a Simplified Directional Facility and a Localizer Type Directional Air and their use in IFR navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);

7. Demonstrate knowledge of IFR low/high en-route charts, instrument approach plates, SIDs, and STARs, as well as the Airport Facility Directory by:

a. explaining the appropriate use of navigation charts (1a, 1b, 2c);

b. explaining and identifying symbols/markings on low and high en-route charts (1a, 1b, 2c);

c. explaining and identifying symbols/markings on instrument approach charts (1a, 1b, 2c);

d. explaining and giving an accurate approach briefing (1a, 1b, 2c);

e. describing Standard Instrument Departure Procedures (1a, 1b, 2c);

f. explaining and identifying symbols/markings on Standard Instrument Departure charts (1a, 1b, 2c);

g. describing Standard Terminal Arrival Routes (1a, 1b, 2c);

h. explaining and identifying symbols/markings on Standard Terminal Arrival Route charts (1a, 1b, 2c);

i. determining accurate information for airport services (1a, 1b, 2c);

8. Demonstrate an understanding of aviation weather and weather services by:

a. identifying critical weather situations from the ground and in flight (1a, 1b, 2c);

b. describing weather theories pertaining to air masses, fronts, atmospheric stability, wind and currents, icing, turbulence, and thunderstorms (1a, 1b, 2c);

c. identifying windshear and explaining windshear avoidance (1a, 1b, 2c);

d. explaining the procurement and use of aviation weather reports and forecasts, the elements of forecasting weather trends on the basis of that information, and personal observation of weather conditions (1a, 1b, 1c, 2c, 2e);

9. Demonstrate an understanding of crew resource management by:

a. explaining crew communication and coordination (1a, 1b, 1c, 2a, 2b, 2c);

b. describing human factors leading to accidents or incidents (1a, 1b, 1c, 2a, 2b, 2c);

c. analyzing human factors in aviation and describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 1c, 2a, 2b, 2c);

d. describing checklist usage (1a, 1b, 1c, 2a, 2b, 2c);

e. describing safe and efficient operation of the aircraft under instrument flight rules and conditions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

AIRP 2143 - Flight Instructor - Multiengine Airplane

General

Course Key
14406

Course Rubric	Course Number	Course Title
AIRP	2143	Flight Instructor - Multiengine Airplane

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-2) Flight instruction necessary to qualify for the Federal Aviation Administration Flight Instructor - Multiengine Airplane Rating. Includes combined ground and flight instruction and analysis of flight maneuvers. Preparation for the Federal Aviation Administration Airman Certification Standards for Flight Instructor Multiengine.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Instruct multiengine maneuvers both on the ground and in flight; apply fundamentals of instruction while in flight; meet the guidelines of the Federal Aviation Administration Airman Certification Standards for Flight Instructor Multiengine.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required flight maneuvers, procedures, and knowledge areas as outlined in the FAA approved Certified Flight Instructor – Multiengine Training Course Outline by:

a. manipulating the flight controls of the aircraft from the right seat of a multiengine aircraft to meet the Federal Aviation Administration Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);

b. demonstrating knowledge of common student errors and FAA practical test standards for every flight maneuver and required knowledge area of a practical exam (1a, 1b, 1c, 2a, 2c, 2e);

c. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing cross county flying and planning (1a, 1b, 1c, 2a, 2c, 2e);

d. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student for solo local and solo cross county flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);

e. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student for manipulation of the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);

f. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to apply safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

g. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to transitioning to aircraft with more than one engine (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

h. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to solve inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

i. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to apply applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);

j. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to operate an aircraft safely, smoothly, and accurately in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 2151 - Multiengine Flight

General

Course Key
15480

Course Rubric
AIRP

Course Number
2151

Course Title
Multiengine Flight

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3) Preparation for the multiengine class rating which will be added to a current pilot certificate. Includes explanation and demonstration of all required Federal Aviation Administration normal and emergency operations and procedures. Preparation for the Federal Aviation Administration Airman Certification Standards for Multiengine Add-On.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain and demonstrate normal and emergency multiengine maneuvers, procedures, and performance calculations; discuss multiengine aerodynamics; meet aeronautical knowledge areas required for the Federal Aviation Administration Multiengine Practical Test.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required flight maneuvers and procedures as outlined in the FAA approved multiengine add-on training course outline by:
    a. manipulating the flight controls of a multiengine aircraft to meet the Federal Aviation Administration Practical Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. manipulating the flight controls of a multiengine aircraft in actual or simulated IMC conditions (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. discussing factors affecting VMC (1a, 1b, 1c, 2a, 2c, 2e);
    d. explaining and discussing critical engine (1a, 1b, 1c, 2a, 2c, 2e);
    e. demonstrating proficiency in single engine operations to include precision instrument approaches (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. applying safe operating practices during normal and emergency situations (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    i. operating an aircraft safely, smoothly and accurately in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 2236 - Certified Flight Instructor - Flight

General

Course Key
12113

Course Rubric
AIRP

Course Number
2236

Course Title
Certified Flight Instructor - Flight

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-4) Flight and ground instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor. Preparation for the Federal Aviation Administration Airman Certification Standards for Certified Flight Instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate commercial level competencies; apply the fundamentals of instruction; analyze and correct maneuvers of student pilots in flight; meet the guidelines of the Federal Aviation Administration Airman Certification Standards for Certified Flight Instructor.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required flight maneuvers, procedures, and knowledge areas as outlined in the FAA-approved Certified Flight Instructor training course outline by
    a. manipulating the flight controls of the aircraft from the right seat to meet the FAA Practical Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. demonstrating knowledge of common student errors and FAA practical test standards for every flight maneuver and required knowledge area of a practical exam (1a, 1b, 1c, 2a, 2c, 2e);
    c. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing cross country flying and planning (1a, 1b, 1c, 2a, 2c, 2e);
    d. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student for solo local and solo cross country flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student for manipulation of the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to apply safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to solve inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to apply applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    i. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to operate an aircraft safely, smoothly, and accurately in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 2239 - Commercial Flight

General

Course Key
9565

Course Rubric	Course Number	Course Title
AIRP	2239	Commercial Flight

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	5

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-5) Flight instruction necessary to qualify for the Federal Aviation Administration Commercial Pilot Certificate. Instruction includes both dual and solo flight training to prepare the student to perform commercial pilot maneuvers. Preparation for the Federal Aviation Administration Airman Certification Standards for Commercial Pilot Certificate.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain flight maneuvers and procedures; demonstrate specific flight maneuvers; demonstrate cross-country flight procedures; meet the guidelines of the Federal Aviation Administration Airman Certification Standards for Commercial Pilot Certificate.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain flight maneuvers and procedures; demonstrate specific flight maneuvers; demonstrate cross country flight procedures; and meet the guidelines of the Federal Aviation Administration Commercial Pilot Practical Test Standards.
2. Demonstrate proficiency in required flight maneuvers and procedures as outlined in the FAA approved Commercial Pilot Training Course Outline by
    a. manipulating the flight controls of the aircraft to meet the Federal Aviation Administration Practical Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. preparing accurate and detailed flight plans and navigation logs (1a, 1b, 1c, 2a, 2c, 2e);
    c. performing solo local and solo cross county flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. manipulating the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. applying safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    h. operating an aircraft safely, smoothly, and accurately in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 2242 - Flight Instructor-Instrument Flight

General

Course Key
12978

Course Rubric	Course Number	Course Title
AIRP	2242	Flight Instructor - Instrument Flight

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-4) Flight and ground instruction required to qualify for the Federal Aviation Administration Certified Flight Instructor--Instrument Certificate. Preparation for the Federal Aviation Administration Airman Certification Standards for Certified Flight Instructor - Instrument.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate instrument and commercial competencies; apply the fundamentals of instruction while in instrument flight; analyze and correct instrument maneuvers of student pilots in flight; meet the guidelines of the Federal Aviation Administration Airman Certification Standards for Certified Flight Instructor–Instrument.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required flight maneuvers, procedures, and knowledge areas as outlined in the FAA approved Certified Flight Instructor–Instrument training course outline by
    a. manipulating the flight controls of the aircraft from the right seat to meet the FAA Practical Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. demonstrating knowledge of common student errors and FAA practical test standards for every flight maneuver and required knowledge area of a practical exam (1a, 1b, 1c, 2a, 2c, 2e);
    c. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to perform required preflight preparations and procedures for instrument flight (1a, 1b, 1c, 2a, 2c);
    d. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to comply with air traffic control clearances and procedures (1a, 1b, 1c, 2a, 2c);
    e. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to manipulate the flight controls of an aircraft in instrument meteorological conditions by reference to the instruments and navigation systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to fly holds, precision and non-precision instrument approaches (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to fly a cross country flight under instrument flight rules (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    h. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to apply safe operating practices and proven rules of thumb (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to solve inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to apply applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    k. performing approved teaching methods and demonstrating knowledge of common student errors as they relate to preparing a student to perform required post-flight procedures (1a, 1b, 1c, 2a, 2c);

AIRP 2250 - Instrument Flight

General

Course Key
9560

Course Rubric
AIRP

Course Number
2250

Course Title
Instrument Flight

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-4) Preparation for the Federal Aviation Administration Airman Certification Standards for the Instrument Rating.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate full and partial panel operations in all flight attitudes, instrument maneuvers and approaches, and air traffic control procedures; display proficiency in chart interpretation and instrument flight planning; meet aeronautical knowledge areas required for the Federal Aviation Administration Instrument Rating Practical Test; demonstrate proficiency in knowledge required by the Federal Aviation Administration for the Instrument Rating Written Test.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required instrument flight maneuvers and procedures by
    a. manipulating the flight controls of the aircraft to meet the Federal Aviation Administration Practical Test Standards for the required flight maneuvers and procedures as outlined in the FAA (1a, 1b, 1c, 2a, 2c, 2e);
    b. performing required preflight preparations and procedures for instrument flight (1a, 1b, 1c, 2a, 2c);
    c. complying with air traffic control clearances and procedures (1a, 1b, 1c, 2a, 2c);
    d. manipulating the flight controls of an aircraft in instrument meteorological conditions by reference to the instruments and navigation systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. performing precision and non-precision instrument approaches (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. performing a cross county flight under instrument flight rules (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. applying safe operating practices and proven rules of thumb (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    j. performing required post flight procedures (1a, 1b, 1c, 2a, 2c);

AIRP 2270 - Instrument Flight, Helicopter

General

Course Key
9921

Course Rubric
AIRP

Course Number
2270

Course Title
Instrument Flight, Helicopter

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
4

Course Classification
Technical Local Need

Description
(2-0-4) Preparation for completion of the Federal Aviation Administration Instrument Pilot Rating with mastery of all instrument flight procedures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate full and partial panel operations in all flight attitudes, instrument maneuvers and approaches, and air traffic control procedures; display proficiency in chart interpretation and instrument flight planning.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in required instrument flight maneuvers and procedures by
    a. manipulating the flight controls of the aircraft to meet the Federal Aviation Administration Practical Test Standards for the required flight maneuvers and procedures as outlined in the FAA Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. perform required preflight preparations and procedures for instrument flight (1a, 1b, 1c, 2a, 2c);
    c. comply with air traffic control clearances and procedures (1a, 1b, 1c, 2a, 2c);
    d. manipulate the flight controls of an aircraft in instrument meteorological conditions by reference to the instruments and navigation systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. perform precision and non-precision instrument approaches (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. perform a cross county flight under instrument flight rules (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. apply safe operating practices and proven rules of thumb (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. solve inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. apply applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    j. performing required post flight procedures (1a, 1b, 1c, 2a, 2c);

AIRP 2271 - Commercial Flight, Helicopter

General

Course Key
9923

Course Rubric
AIRP

Course Number
2271

Course Title
Commercial Flight, Helicopter

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
5

Course Classification
Technical Local Need

Description
(2-0-5) Flight instruction necessary to qualify for the Federal Aviation Administration Commercial Pilot Certificate. Instruction includes both dual and solo flight training to prepare the student for mastery of all commercial pilot maneuvers.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain flight maneuvers and procedures; demonstrate specific flight maneuvers; demonstrate cross country flight procedures; and meet the guidelines of the Federal Aviation Administration Commercial Pilot Practical Test Standards.
2. Demonstrate proficiency in required flight maneuvers and procedures as outlined in the FAA approved Commercial Pilot Training Course Outline by
    a. manipulating the flight controls of the aircraft to meet the Federal Aviation Administration Practical Test Standards for the required flight maneuvers as outlined in the Federal Aviation Regulations (1a, 1b, 1c, 2a, 2c, 2e);
    b. preparing accurate and detailed flight plans and navigation logs (1a, 1b, 1c, 2a, 2c, 2e);
    c. performing solo local and solo cross county flights (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. manipulating the flight controls of an aircraft at night (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. applying safe operating practices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. solving inflight emergencies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. applying applicable FAA Regulations (1a, 1b, 1c, 2a, 2c);
    h. operating an aircraft safely, smoothly, and accurately in the National Airspace System (1a, 1b, 1c, 2c);

AIRP 2333 - Aircraft Systems

General

Course Key
9567

Course Rubric	Course Number	Course Title
AIRP	2333	Aircraft Systems

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Study of the theory, operation, and application of pneumatic, hydraulic, electrical, fuel, environmental, protection, and warning systems. Emphasis on subsystems and control systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Summarize the operation of hydraulic, pneumatic, electrical, and fuel systems; explain the operation of aircraft protection and warning systems; and explain aircraft flight control, instrumentation, and navigation systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the operation of hydraulic, pneumatic, electrical, and fuel systems; explain the operation of aircraft protection and warning systems; and explain aircraft flight control, instrumentation, and navigation systems (1a, 1b, 2c, 2d, 2e).
2. Demonstrate an understanding of electronic air navigation equipment by
    a. explaining how radio navigation (VOR, GPS, NDB) systems operate and their usefulness in air navigation (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of aircraft power plants, systems and instruments by
    a. describing the operation of a reciprocating engine (1a, 1b, 2c, 2d, 2e);
    b. describing the operation of a turbo charged or super charged engine (1a, 1b, 2c, 2d, 2e);
    c. describing the operation of a typical aircraft electrical system (1a, 1b, 2c, 2d, 2e);
    d. describing the operation of the primary controls surfaces, flaps, leading edge devices, and spoilers (1a, 1b, 2c, 2d, 2e);
    e. describing the operation of aircraft fuel systems (1a, 1b, 2c, 2d, 2e);
    f. describing the operation of aircraft anti-ice and/or de-ice system (1a, 1b, 2c, 2d, 2e);
    g. describing how the ignition system works (1a, 1b, 2c, 2d, 2e);
    h. describing how the landing gear system works (1a, 1b, 2c, 2d, 2e);
    i. describing how the pneumatic system works and the instruments it powers (1a, 1b, 2c, 2d, 2e);
    j. describing how the hydraulic system works (1a, 1b, 2c, 2d, 2e);
    k. describing how the constant speed propeller works (1a, 1b, 2c, 2d, 2e);
    l. describing how the pitot static system works and the instruments it powers (1a, 1b, 2c, 2d, 2e);
    m. describing the operating principles of the altimeter, airspeed indicator, attitude indicator, heading indicator, vertical speed indicator, and turn indicator (1a, 1b, 2c, 2d, 2e);
    n. describing the operating principles of EFIS and ICAS (1a, 1b, 2c, 2d, 2e);
    o. describing how autopilot works (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of electronic navigation and approaches by use of navigation systems by
    a. explaining and describing how a VOR works and its use in navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    b. explaining and describing how a NDB works and its use in navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    c. explaining and describing how a DME works and its use in navigation and instrument approaches (1a, 1b, 2c, 2d, 2e);
    d. explaining and describing how RNAV/GPS works and its use in navigation and instrument approaches (1a, 1b, 2c, 2d, 2e).

AIRP 2337 - Commercial Ground School

General

Course Key
9568

Course Rubric	Course Number	Course Title
AIRP	2337	Commercial Ground School

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of advanced aviation topics used for Federal Aviation Administration certification at the commercial pilot level. Preparation for the Federal Aviation Administration Airman Certification Standards for Commercial Pilot Certificate.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculate advanced aircraft performance; describe systems for complex aircraft; explain the Federal Aviation Regulations that apply to commercial flight operations; and analyze advanced airplane operations; identify aeronautical knowledge areas required for the Federal Aviation Administration Commercial Pilot Practical Test; demonstrate proficiency in knowledge required by the Federal Aviation Administration for the Commercial Pilot Written Test.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Calculate advanced aircraft performance; describe systems for complex aircraft; explain the Federal Aviation Regulations that apply to commercial flight operations; and analyze advanced airplane operations.
2. Demonstrate an understanding of applicable Federal Aviation Regulations by
    a. locating applicable regulations and critical information related to a Commercial Pilot in the FAR/AIM and FAA advisory circulars (1a, 1b, 2c);
    b. describing commercial pilot privileges and limitations (1a, 1b, 2c);
    c. recalling and applying appropriate flight operation privileges and limitations (1a, 1b, 2c);
    d. describing accident reporting requirements of the NTSB (1a, 1b, 2c);
    e. describing FAA medical certificates and pilot certificate category and class (1a, 1b, 2c);
    f. identifying aircraft and pilot certificate categories, classes, and types (1a, 1b, 2c);
3. Demonstrate an understanding of air navigation by
    a. explaining and identifying symbols/markings on aeronautical charts (1a, 1b, 2c);
    b. identifying and describing Class A, B, C, D, E, and G Airspace as well as Special Use and Other Airspace in the National Airspace System (1a, 1b, 2c);
    c. distinguishing between variation/deviation and pilotage/dead reckoning (1a, 1b, 2c);
    d. computing time, speed, and distance plus other basic calculations using an E6/B flight calculator (1a, 1b, 2c, 2d, 2e);
    e. preparing a thorough and accurate flight plan and navigation log using aeronautical charts, plotters, FAA publications, E6/B calculator, and Airplane Operating Handbook (1a, 1b, 1c, 2a, 2c, 2d);
    f. explaining how radio navigation (VOR, GPS, NDB) systems operate and their usefulness in air navigation (1a, 1b, 2c, 2d, 2e);
    g. describing lost procedures and flight diversions (1a, 1b, 2c);
    h. distinguishing hazardous areas and applying proper collision avoidance procedures (1a, 1b, 2c);
    i. describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 2c);
    j. demonstrating effective radio communication procedures (1a, 1b, 2c, 2d, 2e);
    k. identifying and describing different ATC services available to pilots, radio procedures, and sources of flight information (1a, 1b, 2c, 2d, 2e);
4. Demonstrate an understanding of aerodynamics by
    a. naming and identifying the different components of an aircraft (1a, 1b, 2c);
    b. naming and identifying primary and secondary flight controls systems (1a, 1b, 2c);
    c. explaining the structure of the atmosphere (1a, 1b, 2c);
    d. describing the different theories in the production of lift (1a, 1b, 2c);
    e. describing the four forces of flight (1a, 1b, 2c);
    f. explaining how changes to lift, thrust, drag, and weight affect the aerodynamic principles of an aircraft (1a, 1b, 2c);
    g. summarizing aircraft stability and its effects on aerodynamic principles (1a, 1b, 2c);
    h. explaining how and why an aircraft stalls and spins as well as proper recovery techniques (1a, 1b, 2c);
    i. explaining recognition and avoidance procedures for wake turbulence (1a, 1b, 2c);
    j. describing the effects of density altitude on takeoff and climb performance (1a, 1b, 2c);
    k. computing weight and balance (1a, 1b, 2c);
5. Demonstrate an understanding of aviation weather by
    a. identifying critical weather situations from the ground and in flight (1a, 1b, 2c);
    b. describing weather theories pertaining to air masses, fronts, atmospheric stability, wind and currents, and thunderstorms (1a, 1b, 2c);
    c. explaining Coriolis force and its effect on our atmosphere (1a, 1b, 2c);

d. identifying wind shear and describing how to avoid it (1a, 1b, 2c);

e. explaining the procurement and use of aeronautical weather reports and forecasts (1a, 1b, 1c, 2c, 2e);

6. Demonstrate an understanding of Pre-Flight Action by

a. identifying and decoding appropriate NOTAMs (1a, 1b, 1c, 2c, 2e);

b. comprehending current and forecasted weather reports and conditions (1a, 1b, 1c, 2c, 2e);

c. identifying known ATC delays (1a, 1b, 2c);

d. determining runway lengths at departure and arrival airports (1a, 1b, 2c);

e. identifying appropriate alternate airports (1a, 1b, 2c);

f. calculating fuel requirements as outlined in the FARs (1a, 1b, 2c, 2e);

g. calculating takeoff and landing distances as well as other aircraft performance data related to commercial flying (1a, 1b, 2c, 2e);

7. Demonstrate an understanding of complex/advanced aircraft power plants, systems, and instruments by

a. identifying the make, model and size of the engine in the aircraft being flown (1a, 1b, 2c, 2d, 2e);

b. describing the operation of a reciprocating engine (1a, 1b, 2c, 2d, 2e);

c. describing the operation of a turbocharged or supercharged engine (1a, 1b, 2c, 2d, 2e);

d. identifying and describing how the electrical system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

e. identifying and describing how the flaps, leading edge devices, and spoilers (if applicable) work on his/her aircraft (1a, 1b, 2c, 2d, 2e);

f. identifying and describing how primary flight control surfaces work on his/her aircraft (1a, 1b, 2c, 2d, 2e);

g. identifying and describing how the fuel system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

h. identifying and describing how the anti-ice and/or de-ice system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

i. identifying and describing how the ignition system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

j. identifying and describing how the landing gear system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

k. identifying and describing how the pneumatic system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

l. identifying and describing how the hydraulic system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

m. describing how the constant speed propeller works (1a, 1b, 2c, 2d, 2e);

n. identifying and describing how the pitot static system works in his/her aircraft (1a, 1b, 2c, 2d, 2e);

o. identifying and describing the operating principles of the altimeter, airspeed indicator, attitude indicator, heading indicator, vertical speed indicator, and turn indicator (1a, 1b, 2c, 2d, 2e);

8. Demonstrate an understanding of flight physiology by

a. determining fitness for flight (1a, 1b, 2c);

b. explaining the physiological effects of flying at high altitudes (1a, 1b, 2c);

c. explaining the signs, symptoms, and appropriate action for hypoxia, hyperventilation, and carbon monoxide poisoning in flight (1a, 1b, 1c, 2c);

d. describing illusions in flight and how to overcome their effects (1a, 1b, 1c, 2c);

e. summarizing the physiology of vision in flight for day and night operations (1a, 1b, 2c);

f. analyzing human factors in aviation and describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 1c, 2c);

AIRP 2349 - Instructor Ground School

General

Course Key
9569

Course Rubric	Course Number	Course Title
AIRP	2349	Instructor Ground School

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Skill development in the fundamentals of teaching and learning in an aviation-oriented environment. Introduction to the techniques of instruction and analysis of flight maneuvers. Preparation for the Federal Aviation Administration Airman Certification Standards for Certified Flight Instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate the fundamentals of instruction through lesson presentations; meet aeronautical knowledge areas required for the Federal Aviation Administration Certified Flight Instructor Practical Test; demonstrate proficiency in knowledge required by the Federal Aviation Administration for the Certified Flight Instructor Written Test.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the fundamentals of instruction by

a. developing appropriate lesson plans for FAA-required knowledge areas and flight maneuvers (1a, 1b, 1c, 2a, 2c);

b. describing human behavior related to needs, motivations, learning, defense mechanisms, and emotional reactions (1a, 1b, 1c, 2c);

c. describing the learning process to include but not limited to learning theory, perceptions, insight, characteristics of learning, and evaluation versus critique (1a, 1b, 1c, 2c);

d. demonstrating effective communication (1a, 1b, 1c, 2c);

e. describing the teaching process (1a, 1b, 1c, 2c);

f. explaining instructor responsibilities and professionalism (1a, 1b, 1c, 2c);

g. explaining techniques of flight instruction (1a, 1b, 1c, 2c);

h. identifying ways to manage risk (1a, 1b, 1c, 2c);

2. Demonstrate an understanding of applicable Federal Aviation Regulations and how to teach them to student and FAA certified pilots by

a. locating applicable regulations and critical information related to a Certified Flight Instructor in the FAR/AIM and FAA advisory circulars (1a, 1b, 2c);

b. describing Certified Flight Instructor privileges and limitations (1a, 1b, 2c);

c. recalling and applying appropriate flight operation privileges and limitations (1a, 1b, 2c);

d. describing accident reporting requirements of the NTSB (1a, 1b, 2c);

e. describing FAA medical certificates and pilot certificate category and class (1a, 1b, 2c);

f. identifying aircraft and pilot certificate categories, classes, and types (1a, 1b, 2c);

g. describing required endorsements and practical experience for all FAA ratings and certificates (1a, 1b, 2c);

3. Demonstrate an understanding of air navigation and how to teach it to student and FAA certified pilots by

a. explaining and identifying symbols/markings on aeronautical charts (1a, 1b, 2c);

b. identifying and describing Class A, B, C, D, E, and G Airspace as well as Special Use and Other Airspace in the National Airspace System (1a, 1b, 2c);

c. distinguishing between variation/deviation and pilotage/dead reckoning (1a, 1b, 2c);

d. computing time, speed, and distance plus other basic calculations using an E6/B flight calculator (1a, 1b, 2c, 2d, 2e);

e. preparing a thorough and accurate flight plan and navigation log using aeronautical charts, plotters, FAA publications, E6/B calculator, and Airplane Operating Handbook (1a, 1b, 1c, 2a, 2c, 2d);

f. explaining how radio navigation (VOR, GPS, NDB) systems operate and their usefulness in air navigation (1a, 1b, 2c, 2d, 2e);

g. describing lost procedures and flight diversions (1a, 1b, 2c);

h. distinguishing hazardous areas and applying proper collision avoidance procedures (1a, 1b, 2c);

i. describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 2c);

j. demonstrating effective radio communication procedures (1a, 1b, 2c, 2d, 2e);

k. identifying and describing different ATC services available to pilots, radio procedures, and sources of flight information (1a, 1b, 2c, 2d, 2e);

4. Demonstrate an understanding of aerodynamics and how to teach it to student and FAA certified pilots by

a. naming and identifying the different components of an aircraft (1a, 1b, 2c);

b. naming and identifying primary and secondary flight control systems (1a, 1b, 2c);

c. explaining the structure of the atmosphere (1a, 1b, 2c);

d. describing the different theories in the production of lift (1a, 1b, 2c);

e. describing the four forces of flight (1a, 1b, 2c);

f. explaining how changes to lift, thrust, drag, and weight affect the aerodynamic principles of an aircraft (1a, 1b, 2c);

g. summarizing aircraft stability and its effects on aerodynamic principles (1a, 1b, 2c);

h. explaining how and why an aircraft stalls and spins as well as proper recovery techniques (1a, 1b, 2c);

i. explaining recognition and avoidance procedures for wake turbulence (1a, 1b, 2c);

j. describing the effects of density altitude on takeoff and climb performance (1a, 1b, 2c);

k. computing weight and balance (1a, 1b, 2c);

5. Demonstrate an understanding of aviation weather and how to teach it to student and FAA certified pilots by

a. identifying critical weather situations from the ground and in flight (1a, 1b, 2c);

b. describing weather theories pertaining to air masses, fronts, atmospheric stability, wind and currents, and thunderstorms (1a, 1b, 2c);

c. explaining Coriolis force and its effect on our atmosphere (1a, 1b, 2c);

d. identifying wind shear and describing how to avoid it (1a, 1b, 2c);

e. explaining the procurement and use of aeronautical weather reports and forecasts (1a, 1b, 1c, 2c, 2e);

6. Demonstrate an understanding of pre-flight action and how to teach it to student and FAA certified pilots by

a. identifying and decoding appropriate NOTAMs (1a, 1b, 1c, 2c, 2e);

b. comprehending current and forecasted weather reports and conditions (1a, 1b, 1c, 2c, 2e);

c. identifying known ATC delays (1a, 1b, 2c);

d. determining runway lengths at departure and arrival airports (1a, 1b, 2c);

e. identifying appropriate alternate airports (1a, 1b, 2c);

f. calculating fuel requirements as outlined in the FARs (1a, 1b, 2c, 2e);

g. calculating takeoff and landing distances as well as other aircraft performance data related to commercial flying (1a, 1b, 2c, 2e);

7. Demonstrate an understanding of complex/advanced aircraft power plants, systems, and instruments and how to teach them to student and FAA certified pilots by

a. identifying the make, model, and size of the engine in the aircraft being flown (1a, 1b, 2c, 2d, 2e);

b. describing the operation of a reciprocating engine (1a, 1b, 2c, 2d, 2e);

c. describing the operation of a turbocharged or supercharged engine (1a, 1b, 2c, 2d, 2e);

d. identifying and describing how the electrical system works in the aircraft (1a, 1b, 2c, 2d, 2e);

e. identifying and describing how the flaps, leading edge devices, and spoilers (if applicable) work on the aircraft (1a, 1b, 2c, 2d, 2e);

f. identifying and describing how primary flight control surfaces work on the aircraft (1a, 1b, 2c, 2d, 2e);

g. identifying and describing how the fuel system works in the aircraft (1a, 1b, 2c, 2d, 2e);

h. identifying and describing how the anti-ice and/or de-ice system works in the aircraft (1a, 1b, 2c, 2d, 2e);

i. identifying and describing how the ignition system works in the aircraft (1a, 1b, 2c, 2d, 2e);

j. identifying and describing how the landing gear system works in the aircraft (1a, 1b, 2c, 2d, 2e);

k. identifying and describing how the pneumatic system works in the aircraft (1a, 1b, 2c, 2d, 2e);

l. identifying and describing how the hydraulic system works in the aircraft (1a, 1b, 2c, 2d, 2e);

m. describing how the constant speed propeller works (1a, 1b, 2c, 2d, 2e);

n. identifying and describing how the pitot static system works in the aircraft (1a, 1b, 2c, 2d, 2e);

o. identifying and describing the operating principles of the altimeter, airspeed indicator, attitude indicator, heading indicator, vertical speed indicator, and turn indicator (1a, 1b, 2c, 2d, 2e);

8. Demonstrate an understanding of flight physiology and how to teach it to student and FAA certified pilots by

a. determining fitness for flight (1a, 1b, 2c);

b. explaining the physiological effects of flying at high altitudes (1a, 1b, 2c);

c. explaining the signs, symptoms, and appropriate action for hypoxia, hyperventilation, and carbon monoxide poisoning in flight (1a, 1b, 1c, 2c);

d. describing illusions in flight and how to overcome their effects (1a, 1b, 1c, 2c);

e. summarizing the physiology of vision in flight for day and night operations (1a, 1b, 2c);

f. analyzing human factors in aviation and describing aeronautical decision making principles and the importance of exercising good judgment (1a, 1b, 1c, 2c);

AIRP 2352 - Practical Dispatching I

General

Course Key
16478

Course Rubric	Course Number	Course Title
AIRP	2352	Practical Dispatching I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Study of advanced concepts in weight and balance, performance calculations, avionics, and engine and airplane specifications including Federal Aviation regulations. Preparation for the Federal Aviation Administration Airman Certification Standards for Aircraft Dispatcher Exam. Must have petition on file to enroll in this course.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the regulations applicable to the aircraft dispatcher; compute weight and balance for advanced aircraft; and solve aircraft performance problems; and demonstrate proficiency in knowledge required by the Federal Aviation Administration for the Aircraft Dispatcher Written Test and for the Federal Aviation Administration Aircraft Dispatcher Practical Test.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of FAA Regulations.
2. Prepare Navigation plans for commercial Aircraft
3. Demonstrate an understanding of Aerodynamics
4. Prepare for flights using appropriate Performance charts and data
5. Demonstrate an understanding of Weather Charts
6. Prepare for flights using appropriate Airport Operation procedures
7. Demonstrate an understanding of Emergencies
8. Demonstrate an understanding of Weather
9. Prepare for flights using appropriate Weight and Balance

AIRP 2380 - Cooperative Education- Commercial Pilot

General

Course Key
14407

Course Rubric	Course Number	Course Title
AIRP	2380	Cooperative Education- Commercial Pilot

Semester Credit Hours	Lecture Hours	Lab Hours
3	1	14

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-14) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Perform the duties of pilot in command and/or second in command by

a. assessing the conditions of the aircraft and environment to verify legally safe for flight (1b, 1c, 2a, 2c, 2d, 2e);

b. explaining steps used to safely navigate an aircraft from departure to destination (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. combining knowledge and skill previously gain to successfully make professional pilot go/no go decisions before and during flight (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. discussing safety measures taken to mitigate risk before and during flight (1b, 1c, 2a, 2c, 2d, 2e);

e. determining the best course of action throughout a flight using proper aeronautical decision making (1a, 1b, 1c, 2a, 2b, 2c, 2e);

f. demonstrating appropriate ATC communication throughout a flight to ascertain proper request and compliance (1a, 1c, 2a, 2b);

g. making practical use of appropriate navigation aids throughout flight (1a, 1b, 1c, 2a, 2c, 2d);

h. determining best course of action should varying emergency conditions exist (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

i. assisting the Pilot in Command/Second in Command (if appropriate) with duties to successfully complete the flight (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

j. abiding by all federal, state, and local laws/procedures relating to flight operations (1a, 1b, 1c, 2a, 2c, 2d);

AIRP 2453 - Practical Dispatching II

General

Course Key
16479

Course Rubric
AIRP

Course Number
2453

Course Title
Practical Dispatching II

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) A study of the duties and responsibilities required of an aircraft dispatcher. Topics include instruction in Federal Aviation Administration regulations, flight planning, and company operations for both domestic and international operations. Preparation for the Federal Aviation Administration Airman Certification Standards for Aircraft Dispatch Practical Test. Must have petition on file to enroll in this course. Required Pre-Requisite: AIRP-2352

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): AIRP-2352

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform the skills required to dispatch aircraft; and demonstrate the aeronautical knowledge areas required for the Federal Aviation Administration Aircraft Dispatch Practical Test.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of FAA Regulations
2. Prepare Navigation plans for commercial Aircraft
3. Demonstrate an understanding of Aerodynamics
4. Prepare for flights using appropriate Performance charts and data
5. Demonstrate an understanding of Weather Charts
6. Prepare for flights using appropriate Airport Operation procedures
7. Demonstrate an understanding of Emergencies
8. Demonstrate an understanding of Weather
9. Prepare for flights using appropriate Weight and Balance

ANES 1370 - Anesthesia (Basic) Pharmacology

General

Course Key
12880

Course Rubric
ANES

Course Number
1370

Course Title
Anesthesia (Basic) Pharmacology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Introduction to the theory and concepts in the proper use and safe practice of delivery and storage of anesthesia medications which includes: Stocking of the drug cart and assisting anesthesia care provider in the preparation of medications. Prerequisite: Acceptance into the Anesthesia Technology Program

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge in the differentiation of various categories of anesthetic and adjunct medications; apply theoretical knowledge and concepts of the proper use and administration of anesthetic and adjunct medications; and apply theoretical knowledge and concepts in the appropriate storage of anesthesia medications.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe safe and effective methods to order, categorize, and store medications in the anesthesia environment (1a, 1c, 2e).
2. Use effective communication skills when interacting with anesthesia providers in assisting with the administration of medications (2b, 2c).
3. Perform proper psychomotor skills in assisting anesthesia providers in the handling and use of anesthesia and adjunct medications (2c, 2e).
4. Differentiate between the various types of intravenous medications (2c).
5. Compare and contrast the side effects of the inhalational agents (2c).
6. Differentiate between the various types of intravenous fluids and blood products (2c).
7. Describe the proper labeling of anesthetic medications (2c, 2e).

ANES 1371 - Principles of Anesthesia Technology

General

Course Key
12882

Course Rubric
ANES

Course Number
1371

Course Title
Principles of Anesthesia Technology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) This course introduces the theoretical and practical aspects of the physical sciences. The dependence of medical diagnostics and the analogous relationship to the human body to the sciences are emphasized. Topics include flow, pressure, resistance, electronic circuit analysis and Ohm's Law. Introduction to the theory and concepts of the use and function of anesthesia supplies and equipment used for various surgical procedures to include cases in: General, regional, and conscious sedation. Prerequisite: Acceptance into the Anesthesia Technology Program

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge to demonstrate competency in the use and care of anesthesia equipment; and communicate concepts and theoretical knowledge as it applies to maintenance of the anesthesia work area in the surgical environment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Prepare anesthesia equipment for proper disposal, cleaning, and sterilization requirement (1a, 1c, 2d, 2e).
2. Demonstrate psychomotor skills in the preparation of equipment for a variety of surgical cases and procedures in anesthesia (2e).
3. Use adequate communication skills when interacting with anesthesia care providers (2b, 2c).
4. Differentiate between the various types of airway equipment used in the difficult airway cart (2c, 2d, 2e).
5. Differentiate between the various types of anesthesia (2c, 2d).
6. Compare and contrast the various patient anatomical positions for surgical cases (2b, 2c).
7. Differentiate between the proper cleaning and sterilization of anesthesia equipment (2c, 2e).
8. Discuss the ASA guidelines for the anesthesia gas machine checkout (2c, 2d, 2e).

ANES 1372 - Introduction to Anesthesia Technology

General

Course Key
12878

Course Rubric
ANES

Course Number
1372

Course Title
Introduction to Anesthesia Technology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) This course provides an introduction to distinctive areas of anesthesia technology and the role of the technologist. An overview of typical surgical procedures and instrumentation and surgical department orientation are covered as well as medical terminology, blood-borne pathogens and non-patient related emergencies. Prerequisite: Acceptance into the Anesthesia Technology Program

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge and concepts of anesthesia technology at the fundamental level for patients in the surgical environment; and communicate theoretical knowledge and concepts of the anesthesia technologist's role, at the fundamental level, in the care of the surgical patient;

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply concepts and principles of the function and job performance of the anesthesia technologist (2b, 2c, 2e).
2. Compare professional anesthesiology roles including the scope of practice and function of each anesthesia care provider (2b, 2c, 2d).
3. Apply anesthesiology process and critical thinking to the care of the surgical patient at the foundational level (2b, 2c, 2d, 2e).
4. Develop individualized anesthesia care plan at the foundational level (2b, 2c, 2d, 2e).
5. Provide safe, effective support of the anesthesia provider in the care of the surgical patient (1b, 1c, 2a, 2b, 2c, 2d, 2e).

ANES 1373 - Anesthesia Technology Fundamentals I

General

Course Key
12879

Course Rubric
ANES

Course Number
1373

Course Title
Anesthesia Technology Fundamentals I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Technical Local Need

Description
(3-2-2) Students are introduced to the surgical suite and the typical daily duties of an anesthesia technologist. Didactic as well as laboratory instruction are provided to supply the student with the required theoretical principles of the profession. Prerequisite: Acceptance into the Anesthesia Technology Program

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge of anesthesia equipment needed for a variety of surgical cases; summarize the proper basic anesthesia set-up for a variety of surgical cases; and communicate concepts and theoretical knowledge of functioning as an anesthesia technologist in the surgical environment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the techniques used for basic anesthesia set-up, and daily anesthesia machine check (2a, 2c, 2d, 2e).
2. Perform psychomotor skills in the selection of proper anesthesia equipment for surgical cases (2e).
3. Differentiate between the various medications used in the anesthesia drug cart (2c, 2d, 2e).
4. Compare and contrast the various sterilization and cleaning procedures used to clean anesthesia equipment (2c, 2d, 2e).
5. Discuss the types of noninvasive and invasive monitoring modalities used in patient care (2b, 2c).
6. Describe the necessary equipment used in the function of the anesthesia gas machine (2b, 2e).

ANES 1375 - Anesthesia Technology Clinic Exp I

General

Course Key
14441

Course Rubric
ANES

Course Number
1375

Course Title
Anesthesia Technology Clinical Experience I

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
16

Course Classification
Technical Local Need

Description
(3-0-16) This course is the student's first opportunity to observe and gain experience in a health care facility. Clinical hours are scheduled in the hospital setting under direct supervision. Students will observe all procedures and may begin to assist in non-direct patient duties. Students experience various anesthesia technology environments as scheduled. Required Prerequisite(s): ANES-1370 and ANES-1372

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ANES-1370 ANES-1372;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ANES 1370 and ANES 1372

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge in the preparation of complex equipment used in pediatric, obstetrical, and outpatient anesthesia; and apply theoretical knowledge of the role of the anesthesia technologist in the care of the pediatric, obstetrical, and ambulatory surgical patient.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Differentiate between the various equipment used in the anesthesia care of the obstetrical, pediatric, and ambulatory surgical patient (2c, 2d, 2e).
2. Write a comprehensive plan of care in conjunction with the anesthesia care provider for the obstetrical, pediatric, and ambulatory surgical patient (2b, 2c, 2d, 2e).
3. Demonstrate proper psychomotor skills in preparation of anesthesia equipment used in obstetrics, pediatrics, and outpatient surgeries (2c, 2d, 2e).
4. Demonstrate decision-making skills used in the anesthesia care of the obstetric, pediatric, and ambulatory surgical patient (2b, 2c, 2d, 2e).

ANES 1474 - Anesthesia Technology Instrumentation I

General

Course Key
12895

Course Rubric
ANES

Course Number
1474

Course Title
Anesthesia Technology Instrumentation I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Technical Local Need

Description
(4-3-2) The primary focus of this course is the anesthesia machine. However, all ancillary equipment, including but not limited to gas cylinders, hospital supply lines, ventilators and absorbers will also be covered. The setup, calibration, operation, basic troubleshooting, maintenance and safety checks for each is taught. Required Prerequisites: ANES-1371 and ANES-1372

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ANES-1371 ANES-1372;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ANES 1371 and ANES 1372

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge of functions of the advanced anesthesia equipment appropriate for surgical procedures; and apply concepts of theoretical knowledge in the preparation of various advanced anesthesia equipment for use by anesthesia providers for complex surgical procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain concepts from biological sciences in the function and use of advanced anesthesia equipment (1b, 1c, 2e).
2. Demonstrate appropriate psychomotor skills in the preparation of advanced anesthesia equipment (2c, 2d, 2e).
3. Describe regulatory compliance requirements for adherence to policies regarding anesthesia equipment (2c, 2d, 2e).
4. Apply didactic knowledge of use of appropriate airway equipment in simulation exercises (2c, 2d, 3e).

ANES 2373 - Anesthesia Technology Fundamentals II

General

Course Key
13693

Course Rubric
ANES

Course Number
2373

Course Title
Anesthesia Technology Fundamentals II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Technical Local Need

Description
(3-2-2) The concepts of Anesthesia Technology Fundamentals I will be expanded upon. Focus will be on the various types of surgical procedures, including emergency situation management and how the role of the anesthesia technologist varies in each. Patient transport, monitoring and positioning will be stressed. Required Prerequisites: ANES-1373 and ANES-1375

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group #Take ANES-1373 ANES-1575(13687); #Take ANES-1373 ANES-1375;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ANES 1373 and ANES 1375

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge to demonstrate competency in the use and care of anesthesia equipment; and communicate concepts and theoretical knowledge as it applies to maintenance of the anesthesia work area in the surgical environment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Prepare anesthesia equipment for proper disposal, cleaning, and sterilization requirement (2c, 2d, 2e).
2. Demonstrate psychomotor skills in the preparation of equipment for a variety of surgical cases and procedures in anesthesia (2c, 2d, 2e).
3. Use adequate communication skills when interacting with anesthesia care providers (2c, 2d).
4. Differentiate between the various types of airway equipment used in the difficult airway cart (2c, 2d, 2e).
5. Differentiate between the various types of anesthesia (2c, 2d).
6. Compare and contrast the various patient anatomical positions for surgical cases (2c, 2d).
7. Differentiate between the proper cleaning and sterilization of anesthesia equipment (2c, 2d, 2e).
8. Discuss the ASA guidelines for the anesthesia gas machine checkout (2c, 2d, 2e).

ANES 2375 - Anesthesia Tech Clinic Experience II

General

Course Key
14442

Course Rubric
ANES

Course Number
2375

Course Title
Anesthesia Technology Clinical Experience II

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
16

Course Classification
Technical Local Need

Description
(3-0-16) This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the clinical setting. A written journal detailing the clinical phase of instruction will be required. Required Prerequisite(s): ANES 1375

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take anes-1375;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ANES 1375

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge of anesthesia technology at the advanced level for all types of surgical cases; and apply concepts and theoretical knowledge of the role of an anesthesia technologist at the advanced level for all types of surgical cases.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the preparation of all types of anesthesia equipment for a variety of anesthesia cases and procedures (2a, 2b, 2c, 2d, 2e).
2. Differentiate between complex and simple types of anesthesia equipment and supplies (2c, 2d, 2e).
3. Analyze patient information to develop an adequate plan of care (2b, 2c, 2d, 2e).
4. Demonstrate appropriate psychomotor skills at the advanced level in the anesthesia preparation of all surgical cases (2c, 2d, 2e).
5. Demonstrate effective leadership skills in working with the anesthesia team in the delivery of patient care (2b, 2c, 2d).

ANES 2474 - Anesthesia Technology Instrumentation II

General

Course Key
12888

Course Rubric
ANES

Course Number
2474

Course Title
Anesthesia Technology Instrumentation II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Technical Local Need

Description
(4-3-2) This course is a continuation of Anesthesia Technology Instrumentation I and expands upon the scope of anesthesia instrumentation. Various pieces of instrumentation such as cell savers, patient warmers, fluid warmers, ACT machines and pulse oximeters will be discussed. Required Prerequisite: ANES-1474

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take ANES-1474;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ANES 1474

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge in function and use of advanced equipment used in cardiac, neurological, and trauma surgical procedures; and apply theoretical knowledge and concepts of the anesthesia technologist role in advanced surgical procedures including cardiac, neurological, and trauma.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Develop a comprehensive anesthesia plan of care with the anesthesia provider for the complex surgical patient (2b, 2c, 2d, 2e).
2. Demonstrate effective communication skills when interacting with the anesthesia care provider in preparation of cardiac, neurological, and trauma patients (2c, 2d).
3. Manage an anesthesia care environment to ensure proper function of various anesthesia equipment used in cardiac, neurological, and trauma surgeries (2a, 2c, 2d, 2e).
4. Demonstrate the characteristics of an effective leader in communicating with other anesthesia providers in the care of complex surgical cases (2a, 2b, 2c, 2d, 2e).
5. Differentiate between the various types of more complex anesthesia equipment and instrumentation (2b, 2c, 2d, 2e).
6. Compare and contrast the various modalities used in peripheral nerve blocks (2b, 2c, 2d, 2e).

ANES 2475 - Anesthesia Tech Clinic Experience III

General

Course Key
14443

Course Rubric
ANES

Course Number
2475

Course Title
Anesthesia Technician Clinical Experience III

Semester Credit Hours
4

Lecture Hours
0

Lab Hours
16

Course Classification
Technical Local Need

Description
(4-0-16) This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the clinical setting. A written journal detailing the clinical phase of instruction will be required. Required Prerequisite(s): ANES 1375 and ANES 2375

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ANES-1375 ANES-2375;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ANES 1375 and ANES 2375

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge of anesthesia technology at the advanced level for all types of surgical cases; and apply concepts and theoretical knowledge of the role of an anesthesia technologist at the advanced level for all types of surgical cases.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the preparation of all types of anesthesia equipment for a variety of anesthesia cases and procedures (2a, 2b, 2c, 2d, 2e).
2. Differentiate between complex and simple types of anesthesia equipment and supplies (2c, 2d, 2e).
3. Analyze patient information to develop an adequate plan of care (2b, 2c, 2d, 2e).
4. Demonstrate appropriate psychomotor skills at the advanced level in the anesthesia preparation of all surgical cases (2c, 2d, 2e).
5. Demonstrate effective leadership skills in working with the anesthesia team in the delivery of patient care (2b, 2c, 2d).

ANES 2476 - Anesthesia Clinical Seminar & Review

General

Course Key
14818

Course Rubric
ANES

Course Number
2476

Course Title
Anesthesia Clinical Seminar & Review

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Technical Local Need

Description
(4-4-0) Students discuss with other students the cases most recently performed during their clinical experience. Research papers will be required on a variety of related topics as well as a review of the written journal detailing the clinical phase of instruction. This course will help to prepare students for the written examinations that will lead to credentialing in AT. Guest speakers may be scheduled. Resume-writing and interview skills will be covered. Prerequisites: ANES-1375 and ANES-2375

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ANES-1375 ANES-2375;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ANES 1375 and ANES 2375

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply theoretical knowledge to effectively perform the function of the Certified Anesthesia Technologist; and apply concepts and theoretical knowledge used to effectively collaborate with the perioperative and anesthesia care teams.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Discuss clinical scenarios in the development, implementation, and evaluation of patient care (2b, 2c, 2d, 2e).
2. Demonstrate acquired knowledge through clinical simulation of critical events (2b, 2c, 2d, 2e).
3. Describe effective communication when interacting with all members of the anesthesia and surgical teams (2c, 2d).
4. Analyze data used to develop and implement patient care plans (2b, 2c, 2d, 2e).
5. Describe the process in the preparation of the ASATT Exam (2b, 2c, 2d, 2e).
6. Discuss the outcomes of the Mock ASATT Exam (2b, 2c, 2d, 2e).

ANTH 2302 - Introduction to Archeology

General

Course Key
10498

Course Rubric
ANTH

Course Number
2302

Course Title
Introduction to Archeology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The study of the human past through material remains. The course includes a discussion of methods and theories relevant to archeological inquiry. Topics may include the adoption of agriculture, response to environmental change, the emergence of complex societies, and ethics in the discipline.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

1. Describe key concepts and theories in archeology.
2. Explain the key techniques and methods used in archeology.
3. Demonstrate an understanding of long term cultural change from an archeological perspective.

ANTH 2346 - General Anthropology

General

Course Key
16238

Course Rubric
ANTH

Course Number
2346

Course Title
General Anthropology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The study of human beings, their antecedents, related primates, and their cultural behavior and institutions. Introduces the major subfields: physical and cultural anthropology, archeology, linguistics, their applications, and ethics in the discipline.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ANTH 2351 - Cultural Anthropology

General

Course Key
16239

Course Rubric
ANTH

Course Number
2351

Course Title
Cultural Anthropology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The study of human cultures. Topics may include social organization, institutions, diversity, interactions between human groups, and ethics in the discipline.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARCE 1342 - Codes/Specifications/Contract Documents

General

Course Key
6205

Course Rubric
ARCE

Course Number
1342

Course Title
Codes, Specifications, and Contract Documents

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0).Study of ordinances, codes, and legal documents as they relate to specifications and drawing. Discussion of owner-architect-contractor responsibilities, duties, and legal relationships.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize codes, ordinances and legal documents; solve planning and construction problems with available resources; compose written construction specification documents; and analyze owner/architect/contractor relationship.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic concepts of the laws and regulations governing the building industry by
    a. explaining local, state, regional, and national code requirements in building construction (1a, 1b, 1c);
    b. explaining the different regulations that govern the building industry (1a, 1b);
    c. identifying the different professional choices of designers and contractors (1a, 1b);
    d. explaining construction law, safety, and ethical values concerning green technology (1a, 1b).
2. Demonstrate an understanding of a variety of construction contract agreements by
    a. Defining and composing procedures to execute construction documents (1a, 1b, 2b, 2d);
    b. defining the different type of contract agreements (1a, 1b);
    c. explaining the roles and responsibilities of the contract parties involved (1a, 1b, 2b, 2d);
    d. explaining the different parts of the contract agreement; i.e. specifically the owner/architect/contractor relationship (1a, 1b);
    e. discussing insurance coverage and requirements of the parties involved (1a, 1b).
3. Execute a code review of a building project by
    a. explaining the code review process (1a, 1b);
    b. interpreting codes in construction drawings and specifications (1a, 1b, 2c);
    c. preparing a summary report of the code review (1a, 1b, 2a, 2b, 2c);
    d. administering the contract agreement for construction (1a, 1b, 2b, 2c, 2d).
4. Demonstrate an understanding of the process of writing specifications by
    a. explaining the importance of the specifications in the contract (1a, 1b);
    b. explaining the proper sequence and organization in preparing a specification (1a, 1b, 2c);
    c. explaining the contents of the project manual and their formats (1a, 1b, 2c);
    d. preparing a specification for residential and commercial projects (1a, 1b, 2c).
5. Demonstrate an understanding of green building requirements, codes, and ethical values by
    a. explaining the importance of sustainability (1a, 1b);
    b. incorporating green knowledge in the design and construction process (1a, 1b, 2c).

ARCE 2352 - Mechanical/Electrical/Plumbing(MEP) Sys

General

Course Key
14578

Course Rubric	Course Number	Course Title
ARCE	2352	Mechanical, Electrical and Plumbing (MEP) Systems

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Preparation of drawings for mechanical, electrical, and plumbing (MEP) systems with emphasis on applicable building and energy codes, product references, and specifications for construction. Course will include a survey of buildings that conserve energy, water, and human resources; sustainable design and construction. The course will illustrate the connection of the previously mentioned topics, when applicable, to the digital age and the Internet of Things (IoT) which are reshaping our built environment. Required Prerequisite: ARCH-2312

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descirption for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARCH-2312;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARCH 2312

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Review and apply building and energy codes, select MEP components, and incorporate specifications to produce MEP drawings including comprehension of related calculations and coordination with building systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify various architectural building materials and methods of construction by
    a. explaining complex interrelated architectural building systems (1a, 1b, 2c, 2d, 2e);
    b. explaining complex interrelated architectural building technologies (1a, 1b, 2c, 2d, 2e);
    c. understanding the design process and the stages and the sequence of events in the process in the construction of a building (1a, 1b, 2c, 2d, 2e);
    d. explaining the fundamentals of residential construction elements (1a, 1b, 2c, 2d, 2e);
    e. explaining the fundamentals of commercial construction elements (1a, 1b, 2c, 2d, 2e).
2. Demonstrate familiarity with the quality of building materials and how they affect the quality of the final product, the finished structure, by
    a. giving examples and explaining numerous building materials (1b, 2c, 2d, 2e);
    b. explaining the methods of assembly of the building materials (1b, 2c, 2d, 2e);
    c. being able to synthesize the technical, aesthetic, and ethical values related to building materials (1b, 2c, 2d, 2e);
    d. identifying and differentiating between the different types of construction (1b, 2c, 2d, 2e);
    e. evaluating the effectiveness of the various building systems and materials (1b, 2c, 2d, 2e);
    f. demonstrating, understanding, and comprehending the nature and application of construction materials and methods of construction (1b, 2c, 2d, 2e).
3. Demonstrate familiarity with architectural building systems and their impact on local and global climate-related issues by
    a. identifying related topics and current events (1b, 1c, 2a, 2c, 2e);
    b. explaining attitudes and behaviors pertinent to the technology or occupation (1b, 1c, 2a, 2c, 2e);
    c. explaining attitudes and behaviors relevant to the professional development of the student (1b, 1c, 2a, 2c, 2e).
4. Identify various mechanical, electrical, plumbing, and conveying systems by
    a. explaining interrelationship between mechanical, electrical, plumbing, and conveying systems within a building system and technologies (1a, 1b, 2c, 2d, 2e);
    b. understanding the design process and the stages and the sequence of events in the construction of a building (1a, 1b, 2c, 2d, 2e);
    c. explaining the fundamentals of residential, mechanical, electrical, and plumbing elements (1a, 1b, 2c, 2d, 2e);
    d. explaining the fundamentals of commercial, mechanical, electrical, and plumbing elements (1a, 1b, 2c, 2d, 2e).
5. Demonstrate familiarity with mechanical/electrical/plumbing (MEP) calculations; select MEP components; interpret codes and specifications; and produce MEP drawings by
    a. producing calculations related to specific MEP conditions and criteria (1b, 2c, 2d, 2e);
    b. selecting appropriate MEP systems directly related to calculations (1b, 2c, 2d, 2e);
    c. demonstrating understanding of code and specification requirements related to MEP systems (1b, 2c, 2d, 2e);
    d. assembling information in order to create fundamental MEP drawings related to calculations generated (1b, 2c, 2d, 2e).

ARCH 1301 - Architectural History I

General

Course Key
16240

Course Rubric	Course Number	Course Title
ARCH	1301	Architectural History I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Part one of a survey of the history of world architecture from pre-history to the present. This course focuses on the period from pre-history up to at least the 14th Century. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.7 History and Global Culture

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARCH 1302 - Architectural History II

General

Course Key
16242

Course Rubric	Course Number	Course Title
ARCH	1302	Architectural History II

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Part two of a survey of the history of world architecture from pre-history to the present. This course focuses on the period of neo-classicism up to the modern era. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.7 History and Global Culture

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARCH 1303 - Architectural Design I

General

Course Key
16245

Course Rubric	Course Number	Course Title
ARCH	1303	Architectural Design I

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4). An introductory studio providing foundation in the conceptual, perceptual, and manual skills necessary for two-dimensional and three-dimensional design. Architectural drawing procedures and practices for residential and/or light frame construction. Construction practices and techniques with emphasis on residential construction methods. Office procedures for coordinating CAD drawings in the office. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills A.2 Design Thinking Skills A.4 Architectural Design Skills A.5 Ordering Systems Recommended Prerequisite: ARCH-1315

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARCH-1315;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARCH 1304 - Architectural Design II

General

Course Key
16246

Course Rubric
ARCH

Course Number
1304

Course Title
Architectural Design II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4). Creative problem solving and presentation of principles,concepts and ideas as applied to introductory architectural projects. Architectural drafting procedures, practices and symbols including the preparation of detailed working drawings for commercial building, with emphasis on commercial construction methods. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills A.2 Design Thinking Skills A.4 Architectural Design Skills A.5 Ordering Systems Required Prerequisite: ARCH-1303 Recommended Prerequisite: ARCH-1315

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARCH-1315;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARCH-1303;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARCH 1307 - Architectural Graphics I

General

Course Key
16247

Course Rubric
ARCH

Course Number
1307

Course Title
Architectural Graphics I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4). Introduction to basic drawing methods and tools. Exploration of techniques available for the design process with emphasis on two-dimensional and three-dimensional composition. Presentation of advance architectural topics with application in computer-aided environment utilizing three-dimensional objects or spaces. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills Recommended Prerequisite: ARCH-1303 or ARCH-1304

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARCH-1303 or ARCH-1304;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ARCH 1308 - Architectural Graphics II

General

Course Key
16248

Course Rubric
ARCH

Course Number
1308

Course Title
Architectural Graphics II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4)Continuation of the study, methodology, and production of architectural drawings. Exploration of techniques available for the design process with emphasis on three-dimensional composition both analog and digital. These techniques will be implemented through the use and instruction of Building Information Management System software. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills A.5 Ordering Systems Required Prerequisite: ARCH-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARCH-1307;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARCH 1311 - Introduction to Architecture

General

Course Key
16249

Course Rubric
ARCH

Course Number
1311

Course Title
Introduction to Architecture

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). An introduction to architecture that explores the practices, principles, and wider context of architecture and design. Focuses on the role of architecture in society, culture, and the broader physical context of the built environment. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.8 Cultural Diversity and Social Equity D.1 Stakeholder Roles in Architecture

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARCH 1315 - Architectural Computer Graphics

General

Course Key
16250

Course Rubric
ARCH

Course Number
1315

Course Title
Architectural Computer Graphics

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4). Effective use of representational media, computer aided design, and digital media to engage formal, organizational, and environmental principles. Emphasis on the appropriate media to inform two-dimensional and three-dimensional design based upon the conventions of architectural graphic communication. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills A.4 Architecture Design Skills

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARCH 2301 - Architectural Freehand Drawing I

General

Course Key
16251

Course Rubric
ARCH

Course Number
2301

Course Title
Architectural Freehand Drawing I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4)Development of freehand drawing skills in architecture. Methods and skills, including emphasis on principles of light, shade, scale, proportion, line, and tonal quality for exploring and developing conceptual ideas and for clear graphic presentations. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills A.4 Architectural Design Skills

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARCH 2302 - Architectural Freehand Drawing II

General

Course Key
16252

Course Rubric
ARCH

Course Number
2302

Course Title
Architectural Freehand Drawing II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Advanced freehand design drawing skills in architecture. Emphasis is on using freehand techniques in visual thinking and analysis. Development of conceptual ideas for clear graphic presentations. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills A.4 Architecture Design Skills Required Prerequisite: ARCH-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARCH-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARCH 2312 - Architectural Technology

General

Course Key
16253

Course Rubric
ARCH

Course Number
2312

Course Title
Architectural Technology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Introduction to materials and methods in the design and construction of buildings. Course will include a survey of buildings that conserve energy, water, and human resources; sustainable design and construction. The course will illustrate the connection of the previously mentioned topics, when applicable, to the digital age and the Internet of Things (IoT) which are reshaping our built environment. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: B.7 Building Envelope Systems and Assemblies B.8 Building Materials and Assemblies

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARCT 2367 - Practicum-Architectural Engineerng Tech

General

Course Key
537

Course Rubric
ARCT

Course Number
2367

Course Title
Practicum in Architectural Engineering Technology/Technician

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
21

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-21) Practical, general workplace training supported by an individualized learning plan developed by the employer, College and student. This experience may be paid or non-paid. Required Prerequisite: Consent of Department Chairperson

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Consent of Department Chairperson

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate basic technical skills related architecture by
    a. demonstrating proper technique in assigned technical exercises in the workplace (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating proper technique in assigned architectural applications in the workplace (1a, 1b, 2a, 2b, 2c, 2d, 2e);
2. Demonstrate appropriate interpretation skills in the preparation and performance of assigned technical skills related to architecture by
    a. integrating concepts related to architectural style and interpretation in the preparation and performance of assigned architectural assignments as applicable (1a, 1b, 2a, 2b, 2c, 2d, 2e);
3. Demonstrate practical knowledge related to the course of study by
    a. combining education based knowledge with job related experience in a format which will engender a melding of the two (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. explaining the methods and practices of an architectural work environment (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. demonstrating the self-confidence and experience necessary to successfully enter the architectural workforce upon graduation (1a, 1b, 2a, 2b, 2c, 2d, 2e);

ARTC 1302 - Digital Imaging I

General

Course Key
9926

Course Rubric
ARTC

Course Number
1302

Course Title
Digital Imaging I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify terminology, advantages and limitations of image editing software; distinguish bitmapped resolutions for image acquisitions and output devices; use digital editing and painting tools; use basic halftone theory in production of images, manipulate, create, and edit digital images for print and for web; specify appropriate file formats.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of digital imaging terminology and tools by
    a. describing color theory (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. identifying digital terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining color modes (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. comparing basic selections (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. Demonstrate an understanding of halftone imagery by
    a. describing halftone theory (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. summarizing advantages of image editing software (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. comprehending the limitations of image editing software (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. explaining image resolution (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. demonstrating output resolution (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. producing color scan (1a, 1b, 2c, 2d, 2e);
3. Edit digital images by
    a. describing calibrating monitor (1a, 1b, 1c, 2a, 2b, 2a, 2b, 2c, 2d, 2e);
    b. analyzing color photos (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. accessing filters (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. comparing blending modes (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. demonstrating color correction (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. constructing additional alpha channels (1a, 1b, 2c, 2d, 2e);
    g. incorporating multiple layered file with photos (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. creating precise selections (1a, 1b, 1c, 2a, 2b, 2c, 2a, 2b, 2e);
    i. manipulating image with editing tools (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. utilizing various file formats (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

ARTC 1305 - Basic Graphic Design

General

Course Key
9330

Course Rubric
ARTC

Course Number
1305

Course Title
Basic Graphic Design

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define basic design terminology; apply the design process using graphic design principles; and demonstrate the use of design tools and equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify basic graphic design principles by
    a. explaining the terminology used to create layouts (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining the terminology used in digital publishing (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. describing the graphic software tools (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. identifying parts of a layout (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. Identify computer terminology and tools by
    a. explaining general computer terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. describing software tools (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. identifying peripherals (1a, 1b, 2c);
    d. identifying proofreader symbols (1a, 1b, 1c, 2a, 2b, 2c, 2e);
3. Generate page layout procedures by
    a. preparing a new file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. saving a new file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. opening an existing file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. saving an existing file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. using a type gauge (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. producing a page layout document with graphic elements (1a, 1b, 1c, 2a, 2b, 2c, 2e);
4. Create vector based graphics procedures by
    a. preparing graphic images (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. manipulating graphic images (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. scanning a graphic image (1a, 1b, 1c, 2a, 2b, 2c, 2e);
5. Create a layout using text and original graphic files by
    a. preparing an original advertising layout that includes text and graphics (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. manipulating design elements (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. preparing design file for service bureau (1a, 1b, 1c, 2a, 2b, 2c, 2e);

ARTC 1313 - Digital Publishing I

General

Course Key
9327

Course Rubric
ARTC

Course Number
1313

Course Title
Digital Publishing I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply fundamentals of page layout; define typographic terminology and specifications; import text and graphics into page layout programs; discuss file formats and file management techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify type terminology and tools by
    a. explaining type terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. describing software page layout tools (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. identifying hardware tools (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. distinguishing layout principles (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. Demonstrate typesetting procedures by
    a. producing a document file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. saving a document file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. opening an existing document (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. combining typesetting and graphics in one document (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. producing a multiple page document (1a, 1b, 1c, 2a, 2b, 2c, 2e);
3. Create page layout document by
    a. preparing a typeset document (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. manipulating a page layout (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. manipulating a graphic image within a document (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. placing a scanned image (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. explaining layout process (1a, 1b, 1c, 2a, 2b, 2c, 2e);
4. Interpret color theory by
    a. differentiating spot/process color (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining color separation (1a, 1b, 1c, 2a, 2b, 2c, 2e);
5. Evaluate output by
    a. critiquing student assignment (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. justifying analysis (1a, 1b, 1c, 2a, 2b, 2c, 2e);

ARTC 1353 - Computer Illustration

General

Course Key
9927

Course Rubric
ARTC

Course Number
1353

Course Title
Computer Illustration

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Use of the tools and transformation options of an industry-standard vector drawing program to create complex illustrations or drawings.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify terminology, advantages and limitations of vector software; use vector drawing tools manipulate, create, and edit vector drawings for print or web; and specify file formats.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify computer terminology and tools by
    a. explaining computer terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. describing software tools (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. identifying peripherals (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. distinguishing design principles (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. Demonstrate computer illustration procedures by
    a. producing new file (1a, 1b, 1c, 2a, 2c, 2e);
    b. saving new file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. opening existing file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. saving existing file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. using a type gauge (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. producing vector illustration (1a, 1b, 1c, 2a, 2b, 2c, 2e);
3. Produce vector based graphics by
    a. preparing graphic image (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. manipulating graphic image (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. manipulating Bezier paths (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. manipulating type (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. explaining design process (1a, 1b, 2c, 2e);
    f. scanning graphic image (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    g. producing color separations (1a, 1b, 1c, 2a, 2b, 2c, 2e);
4. Interpret color theory by
    a. differentiating spot/process colors (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining color separations (1a, 1b, 1c, 2a, 2b, 2c, 2e);
5. Evaluate output by
    a. critiquing student assignments (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. justifying analysis (1a, 1b, 1c, 2a, 2b, 2c, 2e);
6. Interact with an industry service bureau by
    a. preparing reproduction file (1a, 1b, 2b, 2c, 2e);
    b. locating service bureau (1a, 1b, 2a, 2b, 2c, 2e);
    c. communicating with service bureau (1a, 1b, 2a, 2b, 2c, 2e);
    d. justifying service bureau printed file (1a, 1b, 2a, 2b, 2c, 2e);

ARTC 2305 - Digital Imaging II

General

Course Key
9329

Course Rubric
ARTC

Course Number
2305

Course Title
Digital Imaging II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Principles of digital image processing and digital painting. Emphasis on raster-based imaging and the creative aspects of electronic illustration for commercial or fine art applications. Required Prerequisite: ARTC-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): ARTC 1302

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use advanced concepts and concerns associated with image resolution and file size; demonstrate digital editing and use of printing/web tools; create, edit, and paint digital images; color correction and manipulation of photographic images; save and output images on various devices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of digital imaging terminology by
    a. clarifying uses of RGB files (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. clarifying uses of CMYK files (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. recognizing poor scans (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. operating color scanner (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. creating images on various output devices (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. incorporating imported graphics (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    g. producing digital halftones (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. Edit digital imagery by
    a. categorizing image resolution (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing filters effectively (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. incorporating text with photos (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. balancing color photos (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. manipulating type (1a, 1b, 2c, 2d, 2e);
    f. demonstrating image adjusting capabilities (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    g. demonstrating advanced skills in image manipulation (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    h. demonstrating advanced masking techniques (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    i. creating precise selections (1a, 1b, 2c, 2d, 2e);
    j. constructing digital art brushes (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    k. designing complex masks (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    l. justifying various file formats (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    m. preparing files for web applications (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    n. submitting files to service bureau (1a, 1b, 1c, 2a, 2b, 2c, 2e);

ARTC 2313 - Digital Publishing II

General

Course Key
9328

Course Rubric
ARTC

Course Number
2313

Course Title
Digital Publishing II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Includes layout procedures from thumbnails and roughs to final comprehensive and print output. Emphasis on design principles for the creation of advertising and publishing materials, and techniques for efficient planning and documenting projects. Required Prerequisite: ARTC-1313

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTC-1313;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTC 1313

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Complete projects using thumbnails, roughs, and comprehensives; use industry standard page layout software to create printable advertising and print collateral; coordinate color and use the principles and elements of design.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. The student will identify computer terminology and tools by
    a. explaining computer terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. describing software tools (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. listing parameters (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. distinguishing design principles (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. The student will demonstrate page layout procedures by
    a. using a type gauge (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. manipulating text and graphics (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. linking text blocks (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. producing single page publication (1a, 1b, 1c, 2a, 2b, 2c, 2e);
3. The student will create page layout text and graphics by
    a. demonstrating paragraph formatting (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. preparing multi-page publication (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. producing color separations (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. creating style sheets (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. generating master pages (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. scanning graphic image (1a, 1b, 1c, 2a, 2b, 2c, 2e);
4. The student will interpret color theory by
    a. differentiating spot/process color (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining color separations (1a, 1b, 1c, 2a, 2b, 2c, 2e);
5. The student will evaluate output by
    a. comparing file formats (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. critiquing student assignments (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. justifying analysis (1a, 1b, 1c, 2a, 2b, 2c, 2e);

ARTC 2317 - Typographic Design

General

Course Key
12682

Course Rubric
ARTC

Course Number
2317

Course Title
Typographic Design

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Exploration of typographic design including computer generated letterforms as elements of design. Includes theory and techniques of traditional, contemporary, and experimental typography. Required Prerequisite: ARTC-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTC-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTC 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate an advanced use of type aesthetics; generate computer-based designs; and explore experimental typography.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of typographic history and terminology by
    a. identifying parts of a typeface (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. identifying type terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. explaining history of type (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. comparing typefaces and describing usage (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. recognizing technological changes in the development of typography (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. Demonstrate an understanding of type design and structure by
    a. recognizing, evaluating, and thinking critically about typography (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. demonstrating aesthetic and conceptual problem solving skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. comprehending how designers deal with type to solve graphic design/visual communication problems (1a, 1b, 1c, 2c, 2d, 2e);
    d. recognizing the visual concerns of typography and typographic organizations of space (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. demonstrating understanding of the potential of typography and how it can develop new ways of communicating, thinking, and problem solving (1a, 1b, 1c, 2c, 2d, 2e);
3. Develop the skills in craftsmanship, professionalism, composition, and work habits by
    a. demonstrating software skills to manipulate typographic elements (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. demonstrating understanding of project presentation for clients (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. explaining image resolution (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. demonstrating output resolution (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. demonstrating the ability to use digital technology as related to the design process (1a, 1b, 1c, 2a, 2b, 2c, 2e);

ARTC 2335 - Portfolio Development for Graphic Design

General

Course Key
4480

Course Rubric
ARTC

Course Number
2335

Course Title
Portfolio Development for Graphic Design

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Preparation of a portfolio comprised of completed graphic design projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study. Required Prerequisite: ARTC-1302 ARTC-1305 ARTC-1313 and ARTC-1353

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTC-1302 ARTC-1305 ARTC-1313 ARTC-1353;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTC 1302 ARTC 1305 ARTC 1313 and ARTC 1353

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Arrange and refine projects for inclusion in a graphic design portfolio; identify industry requirements for employment; identify current events, skills, attitudes and behaviors pertinent to the industry and relevant to the professional development of the student; and create a presentation portfolio.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Modify projects for inclusion in a professional portfolio by
    a. analyzing previous class projects (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. refining class projects (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. categorizing projects (1a, 1b, 1c, 2a, 2b, 2c, 2e);
2. Convey behavior requirements for employment by
    a. explaining ethical behavior (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. drafting ethical industry guidelines (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. identifying teamwork (1a, 1b, 1c, 2c, 2d, 2e);
    d. producing employment attendance policy (1a, 1b, 1c, 2a, 2b, 2c, 2e);
3. Display industry requirements for employment by
    a. distinguishing legal/illegal application questions (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. distinguishing legal/illegal interview questions (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. composing cover letter (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. preparing resume (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. inspecting online job opportunity websites (1a, 1b, 1c, 2a, 2b, 2c, 2e);
4. Create a presentation portfolio by
    a. generating web portfolio (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. producing print portfolio (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting print portfolio for critique (1a, 1b, 1c, 2a, 2b, 2c, 2e);
5. Evaluate peer portfolios by
    a. examining print portfolios (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. justifying portfolio critique (1a, 1b, 1c, 2a, 2b, 2c, 2e);

ARTC 2340 - Computer Illustration II

General

Course Key
9929

Course Rubric
ARTC

Course Number
2340

Course Title
Computer Illustration II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Advanced use of software applications and/or various media with emphasis on output procedures, the resolution of complex design issues, and concept development. Required Prerequisite: ARTC-1353

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTC-1353;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTC 1353

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate efficient use of tools; utilize advanced software capabilities; exhibit problem solving skills in relation to output.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify advanced graphics terminology and tools by
    a. defining color modes (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    b. explaining vector versus raster graphics (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    c. distinguishing principles and elements of design (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    d. describing 2D and 3D graphics (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
2. Demonstrate advanced computer illustration techniques by
    a. producing a clipping mask (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    b. applying transparency blending modes (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    c. demonstrating color trapping (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    d. demonstrating use of filters (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    e. demonstrating use of effects (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
3. Create advanced vector based graphics by
    a. preparing a complex graphic image (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    b. manipulating vector based images (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    c. manipulating 3D tools (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    d. manipulating a gradient mesh (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    e. manipulating a vector map on 3D graphics (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
4. Evaluate output by
    a. critiquing student assignments (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    b. justifying analysis (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
5. Prepare completed illustration for a service bureau by
    a. distinguishing publishing file formats (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    b. generating .pdf and native files (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    c. communicating with service bureau (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);
    d. justifying service bureau printed file (1a, 1b, 1c, 2a, 2b, 2d, 2c, 2e);

ARTS 1301 - Art Appreciation

General

Course Key
16254

Course Rubric
ARTS

Course Number
1301

Course Title
Art Appreciation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. General education course open to all; design principles from the layman's point of view.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTS 1303 - Art History I (Prehist to 14th Century)

General

Course Key
16255

Course Rubric
ARTS

Course Number
1303

Course Title
Art History I (Prehistoric to the 14th century)

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTS 1304 - Art History II (14th Century to Present)

General

Course Key
16256

Course Rubric
ARTS

Course Number
1304

Course Title
Art History II (14th century to the present)

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTS 1311 - Design I (2-dimensional)

General

Course Key
16257

Course Rubric
ARTS

Course Number
1311

Course Title
Design I (2-Dimensional)

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) An introduction to the fundamental terminology, concepts, theory, and application of two-dimensional design.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTS 1312 - Design II (3-dimensional)

General

Course Key
16258

Course Rubric
ARTS

Course Number
1312

Course Title
Design II (3-Dimensional)

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) An introduction to the fundamental terminology, concepts, theory, and application of three-dimensional design. Recommended Prerequisite: ARTS-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTS-1311
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 1316 - Drawing I

General

Course Key
16259

Course Rubric
ARTS

Course Number
1316

Course Title
Drawing I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) A foundation studio course exploring drawing with emphasis on descriptive, expressive and conceptual approaches. Students will learn to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will engage in critical analysis and begin to develop their understanding of drawing as a discipline.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTS 1317 - Drawing II

General

Course Key
16261

Course Rubric
ARTS

Course Number
1317

Course Title
Drawing II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) A studio course exploring drawing with continued emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will employ critical analysis to broaden their understanding of drawing as a discipline.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTS-1311 Arts-1316;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 2313 - Graphic Design

General

Course Key
16262

Course Rubric
ARTS

Course Number
2313

Course Title
Graphic Design

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Studio course that introduces basic objectives, principles, and methods used in graphic design. The course focuses on creativity, aesthetic judgment, and critical-thinking skills to expand conceptual solutions within the realm of contemporary graphic design. Recommended Prerequisites: ARTS-1311, ARTS-1316 and basic computer literacy

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take arts-1311 arts-1316;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 2316 - Painting I

General

Course Key
16263

Course Rubric
ARTS

Course Number
2316

Course Title
Painting I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Studio art course that introduces the fundamental principles, materials, and techniques of painting. Recommended Prerequisites: ARTS-1311 or ARTS-1316

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take arts-1311 or arts-1316;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ARTS 2317 - Painting II

General

Course Key
16264

Course Rubric
ARTS

Course Number
2317

Course Title
Painting II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4). Continuation of ARTS-2316. Studio art course that furthers the study of the principles, materials, and techniques of painting. Required Prerequisite: ARTS-2316

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take arts-2316;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 2323 - Life Drawing

General

Course Key
16265

Course Rubric
ARTS

Course Number
2323

Course Title
Life Drawing

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Studio art course that introduces the analytic study of the human form and the figure's potential for compositional and expressive use in drawing. Recommended Prerequisite: ARTS-1317

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take arts-1317;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 2326 - Sculpture

General

Course Key
16266

Course Rubric
ARTS

Course Number
2326

Course Title
Sculpture

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) A studio art course that introduces the materials, processes, and issues pertaining to the making of three-dimensional objects and environments. The course explores the use of varied materials and techniques along with the formal and conceptual principles that form the basis of contemporary sculpture. Recommended Prerequisite: ARTS-1312

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take arts-1312;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 2333 - Printmaking

General

Course Key
16267

Course Rubric
ARTS

Course Number
2333

Course Title
Printmaking

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) A studio art course that introduces the materials, processes, and concepts pertaining to traditional and contemporary printmaking. The course explores the use of varied tools and techniques along with the formal and conceptual principles to create editioned and unique works. Recommended Prerequisite: ARTS-1311 or ARTS-1316

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take arts-1311 or arts-1316;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ARTS 2346 - Ceramics I

General

Course Key
16268

Course Rubric
ARTS

Course Number
2346

Course Title
Ceramics I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) A studio art course that introduces basic building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTS 2347 - Ceramics II

General

Course Key
16269

Course Rubric
ARTS

Course Number
2347

Course Title
Ceramics II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4). Continuation of ARTS 2346. A studio art course that furthers the study of building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery. Required Prerequisite: ARTS-2346

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take arts-2346;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 2348 - Digital Media

General

Course Key
16270

Course Rubric
ARTS

Course Number
2348

Course Title
Digital Media

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Studio art course that introduces the potential of basic digital media manipulation and graphic creation. The course emphasizes still and time-based media. Recommended Prerequisite: Basic computer literacy and ARTS-1311 or ARTS-1316

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take arts-1311 or arts-1316;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ARTS 2356 - Photography I (Fine Arts Emphasis)

General

Course Key
16271

Course Rubric
ARTS

Course Number
2356

Course Title
Photography I (Fine Arts Emphasis)

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) A studio art course that introduces the technical and conceptual basics of photography as a creative medium. Required Prerequisite: Freshman studio core. (Prerequisite applies to art majors only.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTS 2357 - Photography II (Fine Arts Emphasis)

General

Course Key
16272

Course Rubric
ARTS

Course Number
2357

Course Title
Photography II (Fine Arts Emphasis)

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Continuation of ARTS-2356. A studio art course that furthers the study of the technical and conceptual basics of photography as a creative medium. Required Prerequisite: ARTS-2356

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTS-2356;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ARTS 2389 - Academic Cooperative

General

Course Key
16273

Course Rubric
ARTS

Course Number
2389

Course Title
Academic Cooperative

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of studio art and/or art history.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ARTV 1303 - Basic Animation

General

Course Key
9930

Course Rubric
ARTV

Course Number
1303

Course Title
Basic Animation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Examination of animation concepts, principles, and storyboard for basic production. Emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences. Required Prerequisite: ARTC-1353

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTC-1353;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTC 1353

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate animation principles; communicate conceptual ideas through storyboards; execute animation sequences; and develop artwork using traditional or digital tools.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify motion graphics terminology and tools by
    a. defining motion graphics (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining animation terms (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. identifying software components (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. using action scripting language (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. describing animation techniques (1a, 1b, 1c, 2a, 2b, 2c, 2e).
2. Generate visual storyboards by
    a. designing animation sequences (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. creating animation sequences (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. writing storyboard scripts (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. organizing technical/creative storyboards (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. preparing technical/creative storyboards (1a, 1b, 1c, 2a, 2b, 2c, 2e).
3. Create computer generated motion graphics by
    a. using computer generated animation tools (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. creating simple graphics (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. generating shape tweens (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. generating motion tweens (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. designing graphics, buttons, and movie clips (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. distinguishing between the library and the stage (1a, 1b, 2c, 2e);
    g. incorporating sound files (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    h. using basic action scripting code (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    i. producing animated sequences (1a, 1b, 1c, 2a, 2b, 2c, 2e).
4. Troubleshoot the completed animation by
    a. recognizing font issues (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. diagnosing frame spikes (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. analyzing file size (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. calculating animation run time (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. solving action scripting issues (1a, 1b, 1c, 2a, 2b, 2c, 2e).
5. Publish completed animations by
    a. distinguishing publishing file formats (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. generating .fla and .swf files (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. exporting animation file (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. justifying animation file (1a, 1b, 1c, 2a, 2b, 2c, 2e).

AUMT 1305 - Introduction to Automotive Technology

General

Course Key
14892

Course Rubric
AUMT

Course Number
1305

Course Title
Introduction to Automotive Technology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) An introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and basic automotive maintenance. May be taught manufacturer specific.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize appropriate safety procedures; describe historical development and career information of the automotive industry; demonstrate safe, professional, and responsible work practices; demonstrate the proper use of shop equipment and tools; describe the eight Automotive Service Excellence (ASE) vehicle subsystems; use service information; and perform basic automotive maintenance.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of an introduction to auto technology by
    a. determining its impact on the vehicle owner, environment, and career opportunities (1a, 1c, 2c, 2d, 2e);
    b. determining individual capabilities to complete repairs (1a, 1c, 2c, 2d, 2e).
2. Demonstrate understanding of safety in the work place, with tools, and equipment by
    a. working safely and developing a secure environment (1a, 1c, 2c, 2d, 2e).
3. Demonstrate understanding of handling of hazardous waste materials by
    a. disposing of hazardous waste and its effects correctly (1a, 1c, 2c, 2d, 2e).
4. Demonstrate understanding of repair equipment, tools, and fasteners by
    a. identifying proper test equipment and tools (1a, 1c, 2c, 2d, 2e);
    b. applying safety principles as applied to use of tools and equipment (1a, 1c, 2c, 2d, 2e);
    c. selecting and securing fasteners correctly (1a, 1c, 2c, 2d, 2e).
5. Demonstrate understanding of engines systems' repair and service by
    a. applying knowledge of engine operation to other engine types (1a, 1c, 2c, 2d, 2e);
    b. applying knowledge of nomenclature and principles of operation to other engine types (1a, 1c, 2c, 2d, 2e);
    c. identifying the components, general inspection, operation, and service of the engine components (1a, 1c, 2c, 2d, 2e);
    d. identifying effects of improper or neglected maintenance (1a, 1c, 2c, 2d, 2e).
6. Demonstrate understanding of basic electricity/electronics by
    a. identifying principles of operation of electrical components and their interrelationship to other automotive systems (1a, 1c, 2c, 2d, 2e);
    b. testing and servicing electrical and electronic systems (1a, 1c, 2c, 2d, 2e).
7. Demonstrate understanding of electrical: batteries, starting, charging, and ignition systems by
    a. studying the principles of basic electricity as applied to ground transportation (1a, 1c, 2c, 2d, 2e);
    b. using basic test meters/equipment (1a, 1c, 2c, 2d, 2e).
8. Demonstrate understanding of fuel systems and emission controls by
    a. identifying basic components and how they operate (1a, 1c, 2c, 2d, 2e);
    b. identifying how each system is serviced (1a, 1c, 2c, 2d, 2e);
    c. identifying, servicing, and maintaining correctly common emission controls (1a, 1c, 2c, 2d, 2e).
9. Demonstrate understanding of suspension and steering by
    a. performing an inspection and identifying commonly worn parts (1a, 1c, 2c, 2d, 2e);
    b. determining the correct procedure for removal of replacement parts (1a, 1c, 2c, 2d, 2e).
10. Demonstrate understanding of power train by
    a. identifying components (1a, 1c, 2c, 2d, 2e);
    b. describing their function and operation (1a, 1c, 2c, 2d, 2e);
    c. identifying the maintenance and servicing of these components (1a, 1c, 2c, 2d, 2e).
11. Demonstrate understanding of heating and air conditioning by
    a. identifying components (1a, 1c, 2c, 2d, 2e);
    b. determining operation, inspection, and general service of these units (1a, 1c, 2c, 2d, 2e).
12. Demonstrate understanding of brake systems by
    a. identifying the components, general operation, inspection, and service procedures (1a, 1c, 2c, 2d, 2e).

AUMT 1306 - Automotive Engine Removal and Install

General

Course Key
14916

Course Rubric
AUMT

Course Number
1306

Course Title
Automotive Engine Removal and Installation

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
5

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-5) Fundamentals of engine inspection, removal and installation procedures. May be taught manufacturer specific. Required Prerequisite: AUMT-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course decription for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE AUMT-1307;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize appropriate safety procedures; perform mechanical engine tests to determine extent of repair or service; remove and install engines in various types of vehicles.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair engine mechanical problems by
    a. demonstrating the ability to diagnose engine noise and evaluate engine condition (1a, 1b, 2c, 2d, 2e);
    b. removing an engine (1a, 1b, 2c, 2d, 2e);
    c. disassembling an engine (1a, 1b, 2c, 2d, 2e);
    d. inspecting the engine components visually for wear (1a, 1b, 2c, 2d, 2e);
    e. using precision measuring instruments to determine wear (1a, 1b, 2c, 2d, 2e).
2. Assemble an engine using appropriate tools and specifications by
    a. assembling an engine (1a, 1b, 2c, 2d, 2e);
    b. utilizing special tools and manufacturer specifications (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

AUMT 1307 - Automotive Electrical Systems

General

Course Key
14921

Course Rubric
AUMT

Course Number
1307

Course Title
Automotive Electrical Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of, charging and starting systems, and electrical accessories. Emphasis on electrical principles, schematic diagrams, and service publications. May be taught manufacturer specific. Required Prerequisite/Corequisite: AUMT-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

#take aumt-1305
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): AUMT 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize safety procedures; define basic electrical principles; interpret wiring schematics and symbols; explain operation of batteries, starting/charging systems, and automotive circuits; use test equipment; and perform basic electrical repairs.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and service battery, starting, and charging systems by
    a. diagnosing the components and operation of storage batteries, starting systems, and charging starting systems (1a, 1b, 2c, 2d, 2e);
    b. servicing the components and operation of storage batteries, starting systems, and charging systems (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and service electrical accessories and lighting systems by
    a. diagnosing the components and operation of electrical accessories and wiring and lighting systems (1a, 1b, 2c, 2d, 2e);
    b. servicing the components and operation of electrical accessories and wiring and lighting systems (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to identify and determine the proper use of electrical test equipment and to explain the use of electrical schematics and symbols by
    a. using electrical wiring diagrams to diagnose and test circuits (1a, 1b, 2c);
    b. demonstrating the ability to locate and utilize computerized and printed repair information (1a, 1b, 2c);
    c. using an ohm meter (1b, 2c, 2e);
    d. using an amp meter (1b, 2c, 2e);
    e. using a volt meter (1b, 2c, 2e).
4. Demonstrate the ability to read, write, and interpret effective repair orders by
    a. writing an accurate, grammatically correct repair order (1a, 1b, 2c);
    b. interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b).
5. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

AUMT 1310 - Automotive Brake Systems

General

Course Key
14893

Course Rubric
AUMT

Course Number
1310

Course Title
Automotive Brake Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught manufacturer specific. Required Prerequisite: AUMT-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

TAke aumt-1307
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize appropriate safety procedures; explain operation of modern brake systems, and diagnose and repair hydraulic systems, drum/disc brake systems, parking brakes, and antilock brake systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and service hydraulic components related to the braking system by
    a. demonstrating the ability to diagnose and service the master cylinder (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and bleed air from hydraulic system (1a, 1b, 2c, 2e);
    c. demonstrating the ability to diagnose and service hydraulic valves (1a, 1b, 2c, 2e);
    d. servicing brake hydraulic hoses and lines (1a, 1b, 2c, 2e).
2. Demonstrate the ability to diagnose and service disc brakes by
    a. diagnosing disc brake failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul disc brakes (1a, 1b, 2c, 2e);
    c. servicing machine brake rotors (1a, 1b, 2c, 2e);
    d. measuring disc brake components using precision measuring tools (1a, 1b, 2c, 2e).
3. Demonstrate the ability to diagnose and service drum brakes by
    a. diagnosing drum brake failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul drum brakes (1a, 1b, 2c, 2e);
    c. servicing machine brake drums (1a, 1b, 2c, 2e);
    d. measuring drum brake components using precision measuring tools (1a, 1b, 2c, 2e).
4. Demonstrate the ability to diagnose and service antilock brakes by
    a. diagnosing antilock brake system failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul antilock brake systems (1a, 1b, 2c, 2e);
    c. retrieving diagnostic data for antilock brake systems (1a, 1b, 2c, 2e).
5. Demonstrate the ability to diagnose and service power assist systems by
    a. diagnosing power assist system failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul power assist systems (1a, 1b, 2c, 2e).
6. Demonstrate the ability to diagnose and service parking brake systems by
    a. diagnosing parking brake system failures (1a, 1b, 2c, 2e);
    b. repairing parking brake systems (1a, 1b, 2c, 2e);
    c. adjusting parking brakes (1a, 1b, 2c, 2e).

7. Interpret effective repair orders by
    a. writing an accurate and grammatically correct repair order (1a, 1b, 2c);
    b. interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b, 2c, 2d, 2e).
8. Apply use of computerized repair information by
    a. locating computer based service information (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. searching databases for technical service bulletins (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. searching for brake system specifications (1a, 1b, 2a, 2b, 2c, 2d, 2e).
9. Demonstrate an understanding of personal laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the laboratory (1b, 1c, 2a, 2e).

AUMT 1316 - Automotive Suspension & Steering Systems

General

Course Key
14923

Course Rubric	Course Number	Course Title
AUMT	1316	Automotive Suspension and Steering Systems
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures and tire and wheel service. May be taught manufacturer-specific. Required Prerequisite: AUMT-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE AUMT-1307;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Utilize safety procedures; explain operations of suspension and steering systems; diagnose and repair system components, including electronically controlled systems; perform 4-wheel alignment procedures; and perform tire service and repair

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair front and rear suspension systems by
    a. diagnosing strut and shock absorber components and control arm, ball joint, spring, and torsion bar components (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing strut and shock absorber components and control arm, ball joint, spring and torsion bar components (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of the operation and construction of suspension systems by explaining the purpose, operation, and components of different types of front and rear suspension systems (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of the operation of different types of steering systems by explaining the purpose, operation, and components of a power steering rack and pinion by
    a. explaining the purpose, operation, and components of a power steering gear (1a, 1b, 2c, 2d);
    b. explaining the purpose, operation, and components of a power steering pump (1a, 1b, 2c, 2d);
    c. explaining the purpose, operation, and components of various types of steering linkages (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of different types of steering systems by
    a. diagnosing power steering rack and pinion components, gear components, pumps, and different types of steering linkages (1a, 1b, 2a);
    b. repairing power steering rack and pinion components, gear components, pumps, and different types of steering linkages (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of alignment and suspension angles by
    a. explaining the purpose of SAI, caster, camber, and toe (1a, 1b, 2c, 2d);
    b. explaining geometric centerline, scrub radius, wheel offset, thrust line, setback, and ride height (1a, 1b, 2c, 2d).
6. Perform a wheel alignment by
    a. performing a four-wheel alignment (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing a two-wheel alignment (1a, 1b, 2a, 2c, 2d, 2e).
7. Demonstrate an understanding of the purpose and construction of automobile tires and rims by
    a. identifying tire construction, size, and ratings (1a, 1b, 2c, 2d);
    b. identifying various rim constructions and sizes (1a, 1b, 2c, 2d).
8. Diagnose and repair tire concerns by identifying tire wear patterns by
    a. measuring tire and rim run out (1a, 1b, 2a, 2c, 2d, 2e);

b. diagnosing tire inflation problems and tire pressure monitoring systems (1a, 1b, 2a, 2c, 2d, 2e);

c. repairing tire inflation problems and tire pressure monitoring systems (1a, 1b, 2a, 2c, 2d, 2e);

d. demonstrating how to mount, balance, and rotate tires (1a, 1b, 2a, 2c, 2d).

AUMT 1319 - Automotive Engine Repair

General

Course Key
14926

Course Rubric
AUMT

Course Number
1319

Course Title
Automotive Engine Repair

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
5

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-5) Fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer-specific. Recommended Prerequisite/Corequisite: AUMT-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

 # TAKE AUMT-1307;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): AUMT 1307

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize safety procedures; explain engine operating principles; demonstrate engine diagnostic procedures; and repair cylinder head, valve train, block assembly, lubrication, and cooling systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair engine mechanical problems by
    a. demonstrating the ability to diagnose engine noises and evaluate engine condition (1a, 1b, 2c, 2d, 2e);
    b. disassembling an engine (1a, 1b, 2c, 2d, 2e);
    c. inspecting engine components visually for wear and damage (1a, 1b, 2c, 2d, 2e);
    d. using precision measuring instruments to determine wear (1a, 1b, 2c, 2d).
2. Assemble an engine using appropriate tools and specifications by
    a. assembling an engine (1a, 1b, 2c, 2d, 2e);
    b. utilizing special tools and manufacturer's specifications (1a, 1b, 2c, 2d).
3. Demonstrate the ability to diagnose and repair cooling and lubrication systems by
    a. diagnosing cooling systems and lubrication systems (1a, 1b, 2c, 2d, 2e);
    b. repairing cooling systems and lubrication systems (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

AUMT 1345 - Automotive Climate Control Systems

General

Course Key
14930

Course Rubric
AUMT

Course Number
1345

Course Title
Automotive Climate Control Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Diagnosis and repair of manual/electronic climate control systems. Includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific. Required Prerequisite: AUMT-1307 or AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take AUMT-1307(12775) or AUMT-1407;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307 or AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use safety procedures including proper refrigerant handling; explain the refrigeration cycle; and diagnose and repair systems including automatic temperature control.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of different air bag systems by
    a. describing the purpose, components, and operations of the air bag system (1a, 1b, 2c, 2d);
    b. demonstrating the ability to diagnose and repair air bag concerns (1a, 1b, 2a, 2c, 2d, 2e);
    c. diagnosing air bag systems using the appropriate equipment (1a, 1b, 2a, 2c, 2d, 2e);
    d. describing necessary repairs after air bag deployment (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of heating and air conditioning concerns by
    a. demonstrating the ability to diagnose and repair AC compressor failures (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing an AC performance test (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the ability to diagnose and repair AC refrigerant leaks using appropriate equipment (1a, 1b, 2a, 2c, 2d, 2e);
    d. demonstrating the ability to diagnose refrigerant pressure readings and determine necessary action (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating the ability to diagnose and repair system component failures (1a, 1b, 2a, 2c, 2d, 2e);
    f. demonstrating the ability to evacuate, recharge, add oil, and leak check AC system (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of the proper use of AC test equipment by
    a. using electrical wiring diagrams to diagnose and test circuits (1a, 1b, 2a, 2c, 2d, 2e);
    b. using manifold gauge sets (1a, 1b, 2a, 2c, 2d, 2e);
    c. using refrigerant recovery and recycling equipment (1a, 1b, 2a, 2c, 2d, 2e);
    d. using electronic leak detectors (1a, 1b, 2a, 2c, 2d, 2e);
    e. using refrigerant identifiers (1a, 1b, 2a, 2c, 2d, 2e);
    f. installing refrigerant dye and identifying leaks (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the procedures necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
5. Utilize computerized software used in the automotive repair industry by
    a. writing repair orders (1a, 1b, 2a, 2c, 2d);
    b. using current industry software to identify repair procedures, locate technical service bulletins (TSBs), and determine repair specifications (1a, 1b, 2a, 2c, 2d, 2e).

AUMT 1405 - Introduction to Automotive Technology

General

Course Key
14933

Course Rubric	Course Number	Course Title
AUMT	1405	Introduction to Automotive Technology
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) An introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and basic automotive maintenance. May be taught manufacturer-specific.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize appropriate safety procedures; describe historical development and career information of the automotive industry; demonstrate safe, professional, and responsible work practices; demonstrate the proper use of shop equipment and tools; describe the eight Automotive Service Excellence (ASE) vehicle subsystems; use service information; and perform basic automotive maintenance.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of an introduction to auto technology by
    a. determining its impact on the vehicle owner, environment, and career opportunities (1a, 1c, 2c, 2d, 2e);
    b. determining individual capabilities to complete repairs (1a, 1c, 2c, 2d, 2e).
2. Demonstrate understanding of safety in the work place, with tools, and equipment by
    a. working safely and developing a secure environment (1a, 1c, 2c, 2d, 2e).
3. Demonstrate understanding of handling of hazardous waste materials by
    a. disposing of hazardous waste and its effects correctly (1a, 1c, 2c, 2d, 2e).
4. Demonstrate understanding of repair equipment, tools, and fasteners by
    a. identifying proper test equipment and tools (1a, 1c, 2c, 2d, 2e);
    b. applying safety principles as applied to use of tools and equipment (1a, 1c, 2c, 2d, 2e);
    c. selecting and securing fasteners correctly (1a, 1c, 2c, 2d, 2e).
5. Demonstrate understanding of engines systems' repair and service by
    a. applying knowledge of engine operation to other engine types (1a, 1c, 2c, 2d, 2e);
    b. applying knowledge of nomenclature and principles of operation to other engine types (1a, 1c, 2c, 2d, 2e);
    c. identifying the components, general inspection, operation, and service of the engine components (1a, 1c, 2c, 2d, 2e);
    d. identifying effects of improper or neglected maintenance (1a, 1c, 2c, 2d, 2e).
6. Demonstrate understanding of basic electricity/electronics by
    a. identifying principles of operation of electrical components and their interrelationship to other automotive systems (1a, 1c, 2c, 2d, 2e);
    b. testing and servicing electrical and electronic systems (1a, 1c, 2c, 2d, 2e).
7. Demonstrate understanding of electrical: batteries, starting, charging, and ignition systems by
    a. studying the principles of basic electricity as applied to ground transportation (1a, 1c, 2c, 2d, 2e);
    b. using basic test meters/equipment (1a, 1c, 2c, 2d, 2e).
8. Demonstrate understanding of fuel systems and emission controls by
    a. identifying basic components and how they operate (1a, 1c, 2c, 2d, 2e);
    b. identifying how each system is serviced (1a, 1c, 2c, 2d, 2e);
    c. identifying, servicing, and maintaining correctly common emission controls (1a, 1c, 2c, 2d, 2e).
9. Demonstrate understanding of suspension and steering by
    a. performing an inspection and identifying commonly worn parts (1a, 1c, 2c, 2d, 2e);
    b. determining the correct procedure for removal of replacement parts (1a, 1c, 2c, 2d, 2e).
10. Demonstrate understanding of power train by
    a. identifying components (1a, 1c, 2c, 2d, 2e);
    b. describing their function and operation (1a, 1c, 2c, 2d, 2e);
    c. identifying the maintenance and servicing of these components (1a, 1c, 2c, 2d, 2e).
11. Demonstrate understanding of heating and air conditioning by
    a. identifying components (1a, 1c, 2c, 2d, 2e);
    b. determining operation, inspection, and general service of these units (1a, 1c, 2c, 2d, 2e).
12. Demonstrate understanding of brake systems by
    a. identifying the components, general operation, inspection, and service procedures (1a, 1c, 2c, 2d, 2e).

AUMT 1407 - Automotive Electrical Systems

General

Course Key
14934

Course Rubric	Course Number	Course Title
AUMT	1407	Automotive Electrical Systems
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of, charging and starting systems, and electrical accessories. Emphasis on electrical principles, schematic diagrams, and service publications. May be taught manufacturer specific.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize safety procedures; define basic electrical principles; interpret wiring schematics and symbols; explain operation of batteries, starting/charging systems, and automotive circuits; use test equipment; and perform basic electrical repairs.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and service battery, starting, and charging systems by
    a. diagnosing the components and operation of storage batteries, starting systems, and charging starting systems (1a, 1b, 2c, 2d, 2e);
    b. servicing the components and operation of storage batteries, starting systems, and charging systems (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and service electrical accessories and lighting systems by
    a. diagnosing the components and operation of electrical accessories and wiring and lighting systems (1a, 1b, 2c, 2d, 2e);
    b. servicing the components and operation of electrical accessories and wiring and lighting systems (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to identify and determine the proper use of electrical test equipment and to explain the use of electrical schematics and symbols by
    a. using electrical wiring diagrams to diagnose and test circuits (1a, 1b, 2c, 2d, 2e);
    b. demonstrating the ability to locate and utilize computerized and printed repair information (1a, 1b, 2c);
    c. using an ohm meter (1b, 2c, 2e);
    d. using an amp meter (1b, 2c, 2e);
    e. using a volt meter (1b, 2c, 2e).
4. Demonstrate the ability to read, write, and interpret effective repair orders by
    a. writing an accurate, grammatically correct repair order (1a, 1b, 2c);
    b. interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

AUMT 1410 - Automotive Brake Systems

General

Course Key
14935

Course Rubric	Course Number	Course Title
AUMT	1410	Automotive Brake Systems

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) Operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught manufacturer specific. Required Prerequisite/Co-requisite: AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take AUMT-1407;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize safety procedures; explain operation of modern brake systems, diagnose and repair hydraulic systems, drum/disc brake systems, parking brakes, and anti-lock brake systems; machine drums and rotors with current industry standard equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and service hydraulic components related to the braking system by
    a. demonstrating the ability to diagnose and service the master cylinder (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and bleed air from hydraulic system (1a, 1b, 2c, 2e);
    c. demonstrating the ability to diagnose and service hydraulic valves (1a, 1b, 2c, 2e);
    d. servicing brake hydraulic hoses and lines (1a, 1b, 2c, 2e).
2. Demonstrate the ability to diagnose and service disc brakes by
    a. diagnosing disc brake failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul disc brakes (1a, 1b, 2c, 2e);
    c. servicing machine brake rotors (1a, 1b, 2c, 2e);
    d. measuring disc brake components using precision measuring tools (1a, 1b, 2c, 2e).
3. Demonstrate the ability to diagnose and service drum brakes by
    a. diagnosing drum brake failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul drum brakes (1a, 1b, 2c, 2e);
    c. servicing machine brake drums (1a, 1b, 2c, 2e);
    d. measuring drum brake components using precision measuring tools (1a, 1b, 2c, 2e).
4. Demonstrate the ability to diagnose and service antilock brakes by
    a. diagnosing antilock brake system failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul antilock brake systems (1a, 1b, 2c, 2e);
    c. retrieving diagnostic data for antilock brake systems (1a, 1b, 2c, 2e).
5. Demonstrate the ability to diagnose and service power assist systems by
    a. diagnosing power assist system failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul power assist systems (1a, 1b, 2c, 2e).
6. Demonstrate the ability to diagnose and service parking brake systems by
    a. diagnosing parking brake system failures (1a, 1b, 2c, 2e);
    b. repairing parking brake systems (1a, 1b, 2c, 2e);
    c. adjusting parking brakes (1a, 1b, 2c, 2e).
7. Interpret effective repair orders by
    a. writing an accurate and grammatically correct repair order (1a, 1b, 2c);
    b. interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b, 2c, 2d, 2e).
8. Apply use of computerized repair information by
    a. locating computer based service information (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. searching databases for technical service bulletins (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. searching for brake system specifications (1a, 1b, 2a, 2b, 2c, 2d, 2e).
9. Demonstrate an understanding of personal laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the laboratory (1b, 1c, 2a, 2e).

AUMT 1416 - Automotive Suspension & Steering Systems

General

Course Key
12685

Course Rubric	Course Number	Course Title
AUMT	1416	Automotive Suspension and Steering Systems

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4). Diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures and tire and wheel service. May be taught manufacturer specific. Required Prerequisite/Co-requisite: AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

#Take AUMT-1407
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize safety procedures; explain operations of suspension and steering systems; diagnose and repair system components, including electronically controlled systems; perform 4-wheel alignment procedures; and perform tire service and repair.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair front and rear suspension systems by
    a. diagnosing strut and shock absorber components and control arm, ball joint, spring, and torsion bar components (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing strut and shock absorber components and control arm, ball joint, spring, and torsion bar components (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of the operation and construction of suspension systems by
    a. explaining the purpose, operation, and components of different types of front and rear suspension systems (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of the operation of different types of steering systems by
    a. explaining the purpose, operation, and components of a power steering rack and pinion (1a, 1b, 2c, 2d);
    b. explaining the purpose, operation, and components of a power steering gear (1a, 1b, 2c, 2d);
    c. explaining the purpose, operation, and components of a power steering pump (1a, 1b, 2c, 2d);
    d. explaining the purpose, operation, and components of various types of steering linkages (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of different types of steering systems by
    a. diagnosing power steering rack and pinion components, gear components, pumps, and different types of steering linkages (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing power steering rack and pinion components, gear components, pumps, and different types of steering linkages (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of alignment and suspension angles by
    a. explaining the purpose of SAI, caster, camber, and toe (1a, 1b, 2c, 2d);
    b. explaining geometric centerline, scrub radius, wheel offset, thrust line, setback, and ride height (1a, 1b, 2c, 2d).
6. Perform a wheel alignment by
    a. performing a four wheel alignment (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing a two wheel alignment (1a, 1b, 2a, 2c, 2d, 2e).
7. Demonstrate an understanding of the purpose and construction of automobile tires and rims by
    a. identifying tire construction, size, and ratings (1a, 1b, 2c, 2d);
    b. identifying various rim constructions and sizes (1a, 1b, 2c, 2d).
8. Diagnose and repair tire concerns by
    a. identifying tire wear patterns (1a, 1b, 2a, 2c, 2d, 2e);
    b. measuring tire and rim run out (1a, 1b, 2a, 2c, 2d, 2e);
    c. diagnosing tire inflation problems and tire pressure monitoring systems (1a, 1b, 2a, 2c, 2d, 2e);
    d. repairing tire inflation problems and tire pressure monitoring systems (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating how to mount, balance, and rotate tires (1a, 1b, 2a, 2c, 2d, 2e).
9. Demonstrate an understanding of personal and laboratory safety by
    a. demonstrating the procedures necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e).
10. Utilize computerized software used in the automotive repair industry by
    a. writing repair orders (1a, 1b, 2a, 2c, 2d);
    b. using Mitchell On Demand to identify repair procedures, locate technical service bulletins (TSBs), and determine repair specifications (1a, 1b, 2a, 2c, 2d, 2e).

AUMT 1419 - Automotive Engine Repair

General

Course Key
14936

Course Rubric
AUMT

Course Number
1419

Course Title
Automotive Engine Repair

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) Fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer-specific. Required Prerequisite/Corequisite: AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take AUMT-1407;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize safety procedures; explain engine operating principles; demonstrate engine diagnostic procedures; and repair cylinder head, valve train, block assembly, lubrication, and cooling systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair engine mechanical problems by
    a. demonstrating the ability to diagnose engine noises and evaluate engine condition (1a, 1b, 2c, 2d, 2e);
    b. disassembling an engine (1a, 1b, 2c, 2d, 2e);
    c. inspecting engine components visually for wear and damage (1a, 1b, 2c, 2d, 2e);
    d. using precision measuring instruments to determine wear (1a, 1b, 2c, 2d, 2e).
2. Assemble an engine using appropriate tools and specifications by
    a. assembling an engine (1a, 1b, 2c, 2d, 2e);
    b. utilizing special tools and manufacturer's specifications (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to diagnose and repair cooling and lubrication systems by
    a. diagnosing cooling systems and lubrication systems (1a, 1b, 2c, 2d, 2e);
    b. repairing cooling systems and lubrication systems (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

AUMT 2307 - Hybrid and/or BEV Systems Diagnostics

General

Course Key
15264

Course Rubric
AUMT

Course Number
2307

Course Title
Hybrid and/or Battery Electric Vehicle (BEV) Systems Diagnostics

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) An advanced study of hybrid and/or battery electric vehicles (BEV) and the unique characteristics of hybrid and/or BEV systems. Includes hybrid and/or BEV safety procedures, diagnosis, and repair of hybrid and/or BEV systems. May be taught manufacturer specific. Required Prerequisite(s): AUMT 1307 or AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#take aumt-1307 or aumt-1407
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307 or AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use hybrid and/or BEV safety features; explain the operation of hybrid and/or BEV vehicles; and diagnose and repair hybrid and/or BEV systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of hybrid vehicle safety by
    a. identifying high voltage circuits and systems on hybrid vehicles (1a, 1b, 2c, 2d, 2e);
    b. demonstrating proper procedures to safely disable vehicle high voltage circuit systems (1a, 1b, 2c, 2d, 2e).
2. Demonstrate an understanding of the operation of hybrid vehicles by
    a. locating and identifying hybrid vehicle components (1a, 1b, 2c, 2d, 2e);
    b. utilizing appropriate industry repair information and best practices to remove and replace hybrid vehicle components (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of how to diagnose and repair hybrid vehicles by
    a. identifying and explaining the proper usage of industry-recognized test equipment (1a, 1b, 2c, 2d, 2e);
    b. identifying and listing some potential locations for testing the hybrid vehicle system using the proper equipment (1a, 1b, 2c, 2d, 2e);
    c. servicing the components and operation of electrical accessories and wiring and lighting systems (1a, 1b, 2c, 2d, 2e).

AUMT 2311 - Automotive Electronic Controls

General

Course Key
14938

Course Rubric
AUMT

Course Number
2311

Course Title
Automotive Electronic Control

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) A study of electronic principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment as applied to automotive technology. May be taught manufacturer specific. Required Prerequisite: AUMT-1307 and AUMT-2321

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take aumt-1307 aumt-2321
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307 and AUMT 2321

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize safety procedures; apply service information; use scan tools and digital storage oscilloscopes; measure electronic controller inputs/outputs; explain common electronic circuit failures; develop diagnostic strategies; and explain on-board computer networks.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and service battery, starting, and charging systems by
    a. diagnosing the components and operation of storage batteries, starting systems, and charging starting systems (1a, 1b, 2c, 2d, 2e);
    b. servicing the components and operation of storage batteries, starting systems, and charging systems (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and service electrical accessories and lighting systems by
    a. diagnosing the components and operation of electrical accessories and wiring and lighting systems (1a, 1b, 2c, 2d, 2e);
    b. servicing the components and operation of electrical accessories and wiring and lighting systems (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to identify and determine the proper use of electrical test equipment and to explain the use of electrical schematics and symbols by
    a. using electrical wiring diagrams to diagnose and test circuits (1a, 1b, 2c);
    b. demonstrating the ability to locate and utilize computerized and printed repair information (1a, 1b, 2c);
    c. using an ohm meter (1b, 2c, 2e);
    d. using an amp meter (1b, 2c, 2e);
    e. using a volt meter (1b, 2c, 2e).
4. Demonstrate the ability to read, write, and interpret effective repair orders by
    a. writing an accurate, grammatically correct repair order (1a, 1b, 2c);
    b. interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b).
5. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

AUMT 2313 - Automotive Drive Train and Axles

General

Course Key
14940

Course Rubric
AUMT

Course Number
2313

Course Title
Automotive Drive Train and Axles

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). A study of automotive clutches, clutch operation devices, manual transmissions/ transaxles, and differentials with emphasis on diagnosis and repair. May be taught manufacturer specific. Required Prerequisite: AUMT-1307 or AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#take AUMT-1307 or AUMT-1407
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307 or AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize appropriate safety procedures; diagnose and repair drivelines, clutches, manual transmissions/transaxles, and differentials; and service constant velocity joints and universal joints.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair manual clutch components by
    a. diagnosing hydraulic clutch systems, linkage type clutch systems, clutches, pressure plates, throw out bearings, pilot bearings, and flywheels (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing hydraulic clutch systems, linkage type clutch systems, clutches, pressure plates, throw out bearings, pilot bearings, and flywheels (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and repair drive lines by
    a. diagnosing a drive shaft and a constant velocity joint (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing a drive shaft and a constant velocity joint (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate the ability to diagnose and repair a manual transmission by
    a. diagnosing transmission noises and shift concerns (1a, 1b, 2a, 2c, 2d, 2e);
    b. diagnosing internal transmission failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    c. repairing internal transmission failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    d. diagnosing transmission leaks (1a, 1b, 2a, 2c, 2d, 2e);
    e. repairing transmission leaks (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate the ability to diagnose and repair a manual transaxle by
    a. diagnosing transaxle noises and shift concerns (1a, 1b, 2a, 2c, 2d, 2e);
    b. diagnosing internal transaxle failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    c. repairing internal transaxle failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    d. diagnosing transaxle leaks (1a, 1b, 2a, 2c, 2d, 2e);
    e. repairing transaxle leaks (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate the ability to diagnose and repair a drive axle by
    a. diagnosing drive axle noises and axle leaks (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing drive axle noises and axle leaks (1a, 1b, 2a, 2c, 2d, 2e);
    c. diagnosing drive axle failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    d. repairing drive axle failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e).
6. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the procedures necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

7. Utilize computerized software used in the automotive repair industry by
    a. writing repair orders (1a, 1b, 2a, 2c, 2d);
    b. using Mitchell On Demand to identify repair procedures, locate technical service bulletins (TSBs), and determine repair specifications (1a, 1b, 2a, 2c, 2d, 2e).

AUMT 2317 - Automotive Engine Performance Analysis I

General

Course Key
14958

Course Rubric
AUMT

Course Number
2317

Course Title
Automotive Engine Performance Analysis I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Theory, operation, diagnosis of drivability concerns, and repair of ignition and fuel delivery systems. Use of current engine performance diagnostic equipment. May be taught manufacturer specific. This course is for general automotive program students. Required Co-requisite: AUMT-1307 or AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take AUMT-1407(10566) or aumt-1307;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Corequisite(s): AUMT 1307 or AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize appropriate safety procedures; explain engine dynamics; diagnose and repair ignition and fuel delivery systems; and use current engine performance diagnostic equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Perform basic engine performance diagnosis by
    a. performing engine compression testing (1a, 1b, 2c, 2d, 2e);
    b. performing cylinder leakage testing (1a, 1b, 2c, 2d, 2e);
    c. performing cooling system temperature testing (1a, 1b, 2c, 2d, 2e);
    d. demonstrating diagnostic and service procedures for basic engine components (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and repair basic ignition system components by
    a. demonstrating diagnostic and service procedures for ignition primary components (1a, 1b, 2c, 2d, 2e);
    b. demonstrating diagnostic and service procedures for ignition secondary components (1a, 1b, 2c, 2d, 2e);
    c. performing basic ignition system tune up (1a, 1b, 2c, 2d, 2e);
    d. adjusting ignition timing (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to diagnose and repair fuel system components by
    a. performing fuel pressure testing (1a, 1b, 2c, 2d, 2e);
    b. demonstrating diagnostic and service procedures for fuel pumps (1a, 1b, 2c, 2d, 2e);
    c. demonstrating service procedures for fuel lines (1a, 1b, 2c, 2d, 2e);
    d. demonstrating service procedures for fuel filters (1a, 1b, 2c, 2d, 2e);
    e. demonstrating service procedures for fuel tank systems (1a, 1b, 2c, 2d, 2e).
4. Demonstrate the ability to diagnose and repair basic fuel delivery systems by
    a. demonstrating service procedures for throttle body and carbureted systems (1a, 1b, 2c, 2d, 2e);
    b. demonstrating diagnostic and service procedures for fuel pressure regulators (1a, 1b, 2c, 2d, 2e);
    c. demonstrating diagnostic and service procedures for fuel injectors (1a, 1b, 2c, 2d, 2e);
    d. demonstrating diagnostic and service procedures for fuel pump electrical circuits (1a, 1b, 2c, 2d, 2e).
5. Demonstrate the ability to diagnose and repair induction systems by
    a. demonstrating diagnostic and service procedures for intake manifold leaks (1a, 1b, 2c, 2d, 2e);
    b. demonstrating diagnostic and service procedures for supercharging systems (1a, 1b, 2c, 2d, 2e);
    c. demonstrating diagnostic and service procedures for turbocharger systems (1a, 1b, 2c, 2d, 2e);
    d. performing induction system testing using proper equipment (1a, 1b, 2c, 2d, 2e).

6. Demonstrate the ability to read, write, and interpret effective repair orders by
    a. demonstrating the ability to write an accurate and grammatically correct repair order (1a, 1b, 2c);
    b. interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b, 2c, 2d, 2e).
7. Use computerized repair information by
    a. locating computer based service information (1a, 1b, 2c, 2d, 2e);
    b. searching databases for technical service bulletins (1a, 1b, 2c, 2d, 2e);
    c. locating engine performance related specifications (1a, 1b, 2c, 2d, 2e).
8. Demonstrate an understanding of personal laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the laboratory (1b, 1c, 2a, 2e).

AUMT 2321 - Automotive Electrical Diagnos and Repair

General

Course Key
14941

Course Rubric
AUMT

Course Number
2321

Course Title
Automotive Electrical Diagnosis and Repair

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific. Required Prerequisite: AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequsite

10
A Requirement block where all subrequirements are required

#take AUMT-1407
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize appropriate safety procedures; operate a digital multimeter and other electrical test equipment; diagnose and repair automotive electrical and accessory systems and instrumentation; and repair wiring and wiring harnesses.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Diagnose and repair lighting systems by
    a. analyzing basic lighting circuit operation and applying it to a specific vehicle lighting system (1a, 1b, 2c, 2d, 2e);
    b. performing tests to isolate specific lighting system symptoms, such as will not turn off, will not turn on, and glows dimly (1a, 1b, 2c, 2d, 2e);
2. Inspect, test, and repair various automotive accessories by
    a. analyzing wiper/washer circuit operation and determining proper diagnostic procedures (1a, 1b, 2c, 2d, 2e);
    b. reading and reviewing wiper/washer system components (1a, 1b, 2c, 2d, 2e);
    c. analyzing power window circuits and determining proper diagnostic procedures (1a, 1b, 2c, 2d, 2e);
    d. reading and reviewing power window system components (1a, 1b, 2c, 2d, 2e);
3. Diagnose and repair instrumentation, gauges, and sending units by
    a. analyzing basic gauge and warning lamp circuit operation and applying those principles to a specific vehicle system (1a, 1b, 2c, 2d, 2e);
    b. identifying and diagnosing, using a strategy-based diagnostic system, specific gauge and warning lamp conditions, incorrect gauge readings, and inoperative warning lamp operation (1a, 1b, 2c, 2d, 2e);
    c. reading and reviewing specific gauge's sending unit components (1a, 1b, 2c, 2d, 2e);
4. Repair wiring and wiring harnesses by
    a. developing an electrical circuit that uses a relay to control a load device (1a, 1b, 2c, 2d, 2e);
    b. constructing an electrical circuit using a relay to control a load device (1a, 1b, 2c, 2d, 2e);
    c. writing a diagnostic procedure for diagnosing a fault in the relay circuit (1a, 1b, 2c, 2d, 2e);
    d. diagnosing a relay circuit using available diagnostic materials and tools (circuit constructed by another class member) (1a, 1b, 2c, 2d, 2e);
    e. diagnosing most relay-controlled electrical circuits (1a, 1b, 2c, 2d, 2e);
5. Analyze the operation of the supplemental restraint system by
    a. locating air bag system components (1a, 1b, 2c, 2d, 2e);
    b. servicing the airbag system properly (1a, 1b, 2c, 2d, 2e);
    c. connecting and disconnecting the airbag system safely (1a, 1b, 2c, 2d, 2e);
6. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e);

AUMT 2325 - Auto Automatic Transmission/Transaxle

General

Course Key
14959

Course Rubric
AUMT

Course Number
2325

Course Title
Automotive Automatic Transmission and Transaxle

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) A study of the operation, hydraulic circuits and electronic controls of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and repair techniques. May be taught manufacturer specific.
Required Prerequisite: AUMT-1307 or AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take AUMT-1307 or AUMT-1407(10566);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307 or AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Diagnose, service, adjust, and repair automatic transmissions/transaxles.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair an automatic transmission by
    a. diagnosing transmission noises and shift concerns (1a, 1b, 2a, 2c, 2d, 2e);
    b. diagnosing transmission leaks and internal transmission failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    c. repairing transmission leaks and internal transmission failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e).
2. Perform automatic transmission/transaxle maintenance procedures by
    a. changing transmission fluid (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating the ability to change fluid filter and to make necessary adjustment to linkage and bands (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of personal and laboratory safety by
    a. explaining the procedures necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).
4. Utilize computerized software used in the automotive repair industry by
    a. writing repair orders (1a, 1b, 2a, 2c, 2d);
    b. using Mitchell On Demand to identify repair procedures, locate technical service bulletins (TSBs), and determine repair specifications (1a, 1b, 2a, 2c, 2d, 2e).

AUMT 2328 - Automotive Service

General

Course Key
14894

Course Rubric
AUMT

Course Number
2328

Course Title
Automotive Service

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Mastery of automotive service including competencies covered in related courses. May be taught manufacturer specific. Required Prerequisite: AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

Take AUMT-1407
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

Service, diagnose, and repair vehicle systems. Maintain shop facilities and equipment.

AUMT 2334 - Auto Engine Performance Analysis II

General

Course Key
14895

Course Rubric
AUMT

Course Number
2334

Course Title
Automotive Engine Performance Analysis II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems. Includes use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Required Prerequisite: AUMT-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take AUMT-1307;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Diagnose and repair emission control systems, computerized engine performance systems, and advanced ignition and fuel systems; and use advanced engine performance diagnostic equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair emission systems by
    a. diagnosing and repairing exhaust gas recirculation (EGR) systems (1a, 1b, 2c, 2d, 2e);
    b. diagnosing and repairing positive crankcase ventilation (PCV) systems (1a, 1b, 2c, 2d, 2e);
    c. diagnosing and repairing secondary air injection systems (1a, 1b, 2c, 2d, 2e);
    d. diagnosing and replacing catalytic converters (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and repair computerized engine performance systems, and advanced ignition and fuel systems by
    a. diagnosing and repairing electronic sensors (1a, 1b, 2c, 2d, 2e);
    b. diagnosing and repairing on board diagnostic (OBD) II system faults (1a, 1b, 2c, 2d, 2e);
    c. diagnosing and repairing advanced technology ignition systems (1a, 1b, 2c, 2d, 2e);
    d. diagnosing and repairing advanced technology fuel systems (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to use advanced technology engine performance diagnostic equipment by
    a. demonstrating the proper use of an electrical multimeter (1a, 1b, 2c, 2d, 2e);
    b. demonstrating the proper use of a digital storage oscilloscope (1a, 1b, 2c, 2d, 2e);
    c. demonstrating the proper use of fuel system test equipment (1a, 1b, 2c, 2d, 2e);
    d. demonstrating the proper use of a diagnostic scan tool (1a, 1b, 2c, 2d, 2e).
4. Read, write, and interpret effective repair orders by
    a. demonstrating the ability to write an accurate and grammatically correct repair order (1a, 1b, 2c);
    b. reading and interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b, 2c, 2d, 2e).
5. Apply use of computerized repair information by
    a. locating computer based service information (1a, 1b, 2c, 2d, 2e);
    b. locating and searching databases for technical service bulletins (1a, 1b, 2c, 2d, 2e);
    c. locating engine performance related specifications (1a, 1b, 2c, 2d, 2e).
6. Understand, explain, and practice personal laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (2a, 1b, 1c, 2e);
    b. practicing proper safety procedures in the laboratory (2a, 1b, 1c, 2e).

AUMT 2388 - Intern Auto/Automotive Mech Tech/ Techn

General

Course Key
15091

Course Rubric
AUMT

Course Number
2388

Course Title
Internship - Automobile/Automotive Mechanics Technology/Technician

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
9

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-9) A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Required Prerequisite: AUMT-1307 or AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#take AUMT-1307 or AUMT-1407
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): AUMT 1307 or AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Diagnose and repair emission control systems, computerized engine performance systems, and advanced ignition and fuel systems; and use advanced engine performance diagnostic equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair emission systems by
    a. diagnosing and repairing exhaust gas recirculation (EGR) systems (1a, 1b, 2c, 2d, 2e);
    b. diagnosing and repairing positive crankcase ventilation (PCV) systems (1a, 1b, 2c, 2d, 2e);
    c. diagnosing and repairing secondary air injection systems (1a, 1b, 2c, 2d, 2e);
    d. diagnosing and replacing catalytic converters (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and repair computerized engine performance systems, and advanced ignition and fuel systems by
    a. diagnosing and repairing electronic sensors (1a, 1b, 2c, 2d, 2e);
    b. diagnosing and repairing on board diagnostic (OBD) II system faults (1a, 1b, 2c, 2d, 2e);
    c. diagnosing and repairing advanced technology ignition systems (1a, 1b, 2c, 2d, 2e);
    d. diagnosing and repairing advanced technology fuel systems (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to use advanced technology engine performance diagnostic equipment by
    a. demonstrating the proper use of an electrical multimeter (1a, 1b, 2c, 2d, 2e);
    b. demonstrating the proper use of a digital storage oscilloscope (1a, 1b, 2c, 2d, 2e);
    c. demonstrating the proper use of fuel system test equipment (1a, 1b, 2c, 2d, 2e);
    d. demonstrating the proper use of a diagnostic scan tool (1a, 1b, 2c, 2d, 2e).
4. Read, write, and interpret effective repair orders by
    a. demonstrating the ability to write an accurate and grammatically correct repair order (1a, 1b, 2c);
    b. reading and interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b, 2c, 2d, 2e).
5. Apply use of computerized repair information by
    a. locating computer based service information (1a, 1b, 2c, 2d, 2e);
    b. locating and searching databases for technical service bulletins (1a, 1b, 2c, 2d, 2e);
    c. locating engine performance related specifications (1a, 1b, 2c, 2d, 2e).
6. Understand, explain, and practice personal laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (2a, 1b, 1c, 2e);
    b. practicing proper safety procedures in the laboratory (2a, 1b, 1c, 2e).

AUMT 2434 - Auto Engine Performance Analysis II

General

Course Key
14949

Course Rubric
AUMT

Course Number
2434

Course Title
Automotive Engine Performance Analysis II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) Diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems. Includes use of advanced engine performance diagnostic equipment. May be taught manufacturer-specific. Required Prerequisite: AUMT-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#take AUMT-1407
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AUMT 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Diagnose and repair emission control systems, computerized engine performance systems, and advanced ignition and fuel systems; and use advanced engine performance diagnostic equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair emission systems by
    a. diagnosing and repairing exhaust gas recirculation (EGR) systems (1a, 1b, 2c, 2d, 2e);
    b. diagnosing and repairing positive crankcase ventilation (PCV) systems (1a, 1b, 2c, 2d, 2e);
    c. diagnosing and repairing secondary air injection systems (1a, 1b, 2c, 2d, 2e);
    d. diagnosing and replacing catalytic converters (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and repair computerized engine performance systems, and advanced ignition and fuel systems by
    a. diagnosing and repairing electronic sensors (1a, 1b, 2c, 2d, 2e);
    b. diagnosing and repairing on board diagnostic (OBD) II system faults (1a, 1b, 2c, 2d, 2e);
    c. diagnosing and repairing advanced technology ignition systems (1a, 1b, 2c, 2d, 2e);
    d. diagnosing and repairing advanced technology fuel systems (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to use advanced technology engine performance diagnostic equipment by
    a. demonstrating the proper use of an electrical multimeter (1a, 1b, 2c, 2d, 2e);
    b. demonstrating the proper use of a digital storage oscilloscope (1a, 1b, 2c, 2d, 2e);
    c. demonstrating the proper use of fuel system test equipment (1a, 1b, 2c, 2d, 2e);
    d. demonstrating the proper use of a diagnostic scan tool (1a, 1b, 2c, 2d, 2e).
4. Read, write, and interpret effective repair orders by
    a. demonstrating the ability to write an accurate and grammatically correct repair order (1a, 1b, 2c);
    b. reading and interpreting customer complaints and repair instructions (1a, 1b, 2a, 2b, 2c, 2d, 2e).
5. Apply use of computerized repair information by
    a. locating computer based service information (1a, 1b, 2c, 2d, 2e);
    b. locating and searching databases for technical service bulletins (1a, 1b, 2c, 2d, 2e);
    c. locating engine performance related specifications (1a, 1b, 2c, 2d, 2e).
6. Understand, explain, and practice personal laboratory safety by
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (2a, 1b, 1c, 2e);
    b. practicing proper safety procedures in the laboratory (2a, 1b, 1c, 2e).

AVIM 2337 - Aviation Law

General

Course Key
11752

Course Rubric
AVIM

Course Number
2337

Course Title
Aviation Law

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of domestic and international aviation law.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the development of aviation law from its origin to modern day; review and critique case studies relating to aviation law.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate proficiency in administrative law by
    a. defining and describing the difference between law and aviation law (1a, 1b, 1c, 2a, 2c);
    b. listing and describing various regulatory agencies and international organizations (1a, 1b, 1c, 2a, 2c);
    c. explaining the Federal Aviation Administration's (FAA) purpose (1a, 1b, 1c, 2a, 2c);
    d. describing FAA enforcement tactics (1a, 1b, 1c, 2a, 2c);
    e. listing steps and procedures in administrative rule making and enforcement of rules (1a, 1b, 1c, 2a, 2c);
    f. discussing aviation medical cases (1a, 1b, 1c, 2a, 2c).
2. Demonstrate proficiency in applying aviation law in aircraft accident cases by
    a. describing basic principles of liability (1a, 1b, 1c, 2a, 2c);
    b. organizing a business to limit liability (1a, 1b, 1c, 2a, 2c);
    c. detailing the importance of aviation insurance (1a, 1b, 1c, 2a, 2c);
    d. explaining exculpatory contracts (1a, 1b, 1c, 2a, 2c);
    e. describing airline and government liability (1a, 1b, 1c, 2a, 2c);
    f. recalling accident notification, reporting, and investigation procedures (1a, 1b, 1c, 2a, 2c).
3. Demonstrate proficiency of aircraft transactions by
    a. describing the procedures related to buying and selling aircraft (1a, 1b, 1c, 2a, 2c);
    b. explaining the benefits and pitfalls of aircraft leasing, co-ownership, and fractional ownership (1a, 1b, 1c, 2a, 2c).
4. Demonstrate proficiency in airport, airspace, and aviation security by
    a. describing FAA regulation of airspace (1a, 1b, 1c, 2a, 2c);
    b. explaining aviation crimes and detailing security tactics to prevent crime (1a, 1b, 1c, 2a, 2c).
5. Demonstrate proficiency in labor and employment law by
    a. describing good practices and poor practices related to hiring staff, crew, and others (1a, 1b, 1c, 2a, 2c);
    b. explaining the role of unions and their effect on labor and employment options (1a, 1b, 1c, 2a, 2c).

AVNC 1303 - Intro to Aviation Electronic Systems

General

Course Key
9443

Course Rubric
AVNC

Course Number
1303

Course Title
Introduction to Aviation Electronic Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). An introduction to the relationship between aviation electronic, flight, and navigational systems with emphasis on their operation and function. Required Prerequisite: AERM-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take AERM-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): AERM 1314

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the function and operation of aviation electronic systems; list frequencies associated with aviation electronic systems; define terminology associated with aviation electronics; and identify safety hazards associated with aviation electronics.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic direct current electrical circuits and circuit components by
    a. explaining basic principles of operation of direct current circuits (1a);
    b. explaining basic principles of operation of components and devices that are used in direct current circuits (1a).
2. Demonstrate an understanding of basic alternating current electrical circuits and circuit components by
    a. explaining basic principles of operation of alternating current circuits (1a);
    b. explaining basic principles of operation of components and devices that are used in alternating current circuits (1a).
3. Demonstrate an understanding of analog electrical components by
    a. explaining the theory, design, and operating principles of analog circuits (1a);
    b. describing the construction of analog electrical/electronic devices (1a);
    c. explaining the principles of operation of analog electrical/electronic devices (1a);
    d. explaining the theory and operating principles of analog aircraft avionic receivers (1a);
    e. explaining the theory and operating principles of analog aircraft avionic transmitters (1a).
4. Demonstrate an understanding of solid state electrical components by
    a. explaining the theory, design, and operating principles of solid state circuits (1a);
    b. describing the construction of solid state electrical/electronic devices (1a);
    c. explaining the principles of operation of solid state electrical/electronic devices (1a).
5. Demonstrate an understanding of digital electrical components by
    a. explaining the theory, design, and operating principles of digital circuits (1a);
    b. describing the construction of digital electrical/electronic devices (1a);
    c. explaining the principles of operation of digital electrical/electronic devices (1a);
    d. explaining the theory and operating principles of digital aircraft avionic receivers (1a);
    e. explaining the theory and operating principles of digital aircraft avionic transmitters (1a);
    f. explaining the theory and design of aircraft digital data busses (1a).
6. Demonstrate an understanding of antenna principles by
    a. explaining the operational principles of antennas (1a);
    b. explaining the design characteristics of antennas (1a);
    c. explaining antenna wave propagation (1a).

AVNC 1343 - Aviation Electric/Electron Syst Install

General

Course Key
15565

Course Rubric
AVNC

Course Number
1343

Course Title
Aviation Electrical and Electronic Systems Installation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). A comprehensive study of and practical experience in the installation of avionic systems in aircraft, mounting electronic equipment, construction and installation of electrical wiring and cables, proper use of tools, selection of materials, and safety.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify procedures for selecting techniques, tools, and equipment for installing avionics systems; interpret an avionics systems layout; and demonstrate tool and equipment usage and wiring techniques for avionics systems installation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the professional responsibilities of the modern avionics technician by
    a. discussing the professional relationship responsibilities between the avionics technician and the employer (1a);
    b. discussing the professional relationship responsibilities between the avionics technician and the aircraft owner/operator (1a);
    c. discussing the professional relationship responsibilities between the avionics technician and the regulatory agencies, FAA, and FCC (1a).
2. Demonstrate proficiency in identifying various types of wiring associated with aircraft electrical and electronic systems by
    a. discussing the need for proper wiring in aircraft electrical and electronic system installations (1a);
    b. explaining procedures for wiring selection as it pertains to environmental conditions (1a);
    c. explaining procedures for wiring selection as it pertains to load carrying capacity (1a).
3. Demonstrate proficiency in the selection and use of tools associated with various aircraft wiring projects by
    a. identifying various types of solderless connectors used in aircraft wiring (1a, 1b, 2c, 2e);
    b. performing solderless connections using various wire types and associated tooling (1a, 1b, 2c, 2e).
4. Demonstrate an understanding of current systems used in aircraft and upgrades to equipment being made in the aviation industry by
    a. performing preparation duties involved in system installations (1a, 1b, 2c, 2e);
    b. performing actual system installations to include all related hardware and wiring for a specific working avionic system (1a, 1b, 2c, 2e);
    c. performing a systems ground check for proper system installations (1a, 1b, 2c, 2e).

AVNC 1370 - Aircraft Comm Systems Line Maintenance

General

Course Key
15566

Course Rubric
AVNC

Course Number
1370

Course Title
Aircraft Communication Systems Line Maintenance

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Technical Local Need

Description
(3-2-3). A course in the theory, operation, testing and troubleshooting of common aircraft communications systems to include aircraft audio distribution systems, VHF communication systems, UHF communication systems, satellite communication systems, telephone systems, public address systems, and intercom systems. The student will receive training on the setup and use of common and peculiar test equipment associated with the testing of aircraft communication systems. Furthermore, the student will receive training in aircraft communication systems troubleshooting and repair practices/procedures using the correct materials and processes.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of Federal Aviation Administration (FAA) regulations and their role in the professional activities of aircraft/avionics technicians by
    a. identifying FAA regulations that are used for certification of aircraft/avionics technicians (airmen other than flight crew members) (1a);
    b. explaining the process used by the FAA to certify aircraft/avionics technicians (1a);
    c. identifying the FAA regulations that identify and authorize performance privileges for aircraft/avionics technicians (1a);
    d. discussing FAA equipment certification and maintenance requirements on equipment (1a);
    e. identifying FAA regulations that are applicable to the operation of different sizes, weights, types, and uses of aircraft (1a).
2. Demonstrate an understanding of Federal Communication Commission (FCC) regulations and the FCC's role in the professional activities of avionics technicians by
    a. describing how FCC regulations are used to certify avionics communication equipment (1a);
    b. describing how FCC regulations apply to the maintenance of communication equipment (1a).
3. Demonstrate an understanding of communication systems certification by
    a. describing the certification process for visual flight rules (VFR) communication systems equipment (1a);
    b. describing the certification process for instrument flight rules (IFR) communication systems equipment (1a).
4. Demonstrate an understanding of various aircraft communication systems by
    a. describing the different designs of aircraft communication systems (1a);
    b. describing the different configurations that are employed in aircraft communication systems (1a);
    c. describing how different aircraft communication systems are integrated together (1a).
5. Demonstrate an understanding of the theory of operation of aircraft communication systems by
    a. describing the theory of operation of very high frequency (VHF) aircraft communication systems (1a);
    b. describing the theory of operation of high frequency (HF) aircraft communication systems (1a);
    c. describing aircraft audio distribution systems (1a);
    d. describing aircraft passenger address systems (1a);
    e. describing aircraft telephone systems (1a);
    f. describing satellite communication systems (1a).
6. Demonstrate an ability to operate and test aircraft communication systems using common and peculiar testing equipment by
    a. performing an operational test on VHF aircraft communication equipment (1a, 1b, 2c, 2e);
    b. performing operational test on HF aircraft communication equipment (1a, 1b, 2c, 2e);
    c. performing operational test on aircraft audio distribution systems (1a, 1b, 2c, 2e);
    d. performing operational test on aircraft public address systems (1a, 1b, 2c, 2e);
    e. performing operational test on aircraft telephone systems (1a, 1b, 2c, 2e);
    f. performing operational test on satellite communication systems (1a, 1b, 2c, 2e).
7. Demonstrate a basic understanding of the FAA required aircraft communication systems functional test by
    a. explaining the use of various types of common ramp use test equipment (1a);
    b. explaining the use of various types of common ramp use power measurement devices (1a).
8. Demonstrate the ability to troubleshoot and isolate aircraft communication system faults by
    a. locating aircraft communication system faults through the use of operational knowledge (1a, 1b, 2c, 2e);
    b. locating aircraft communication systems faults through the use of published information (1a, 1b, 2c, 2e);
    c. locating aircraft communication systems faults through the use of test equipment (1a, 1b, 2c, 2e).

AVNC 1371 - Aircraft Navigation Syst Line Maintenanc

General

Course Key
15567

Course Rubric
AVNC

Course Number
1371

Course Title
Aircraft Navigation Systems Line Maintenance

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Technical Local Need

Description
(3-2-3). A course (aircraft line maintenance) in the theory, operation, testing and troubleshooting of common aircraft navigation systems, to include VOR/LOC navigation systems, instrument landing systems, global positioning systems, Distance Measurement Equipment, and Air Traffic Control Radar Beacon Systems. The student will receive training on the setup and use of common and peculiar test equipment associated with the testing of aircraft navigation systems. Furthermore, the student will receive training in aircraft navigation systems troubleshooting and repair practices/ procedures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of Federal Aviation Administration (FAA) regulations and their role in the professional activities of aircraft/avionics technicians by
    a. identifying FAA regulations that are used for certification of aircraft/avionics technicians (airmen other than flight crew members) (1a);
    b. explaining the process used by the FAA to certify aircraft/avionics technicians (1a);
    c. identifying the FAA regulations that identify and authorize performance privileges for aircraft/avionics technicians (1a);
    d. discussing FAA equipment certification and maintenance requirements on equipment (1a);
2. Demonstrate an understanding of Federal Communication Commission (FCC) regulations and the FCC's role in the professional activities of avionics technicians by
    a. describing how FCC regulations are used to certify avionics equipment (1a);
    b. describing how FCC regulations apply to the maintenance of avionics equipment (1a).
3. Demonstrate an understanding of basic aircraft navigation by
    a. explaining the principles of aviation (aircraft) navigation (1a);
    b. explaining the various levels of navigation used in aviation activities (1a).
4. Demonstrate an understanding of navigation systems' certification by
    a. describing the certification process for visual flight rules (VFR) navigation system equipment (1a);
    b. describing the certification process for instrument flight rules (IFR) navigation system equipment (1a).
5. Describe various aircraft navigation systems by
    a. describing the different designs of aircraft navigation systems (1a);
    b. describing the different configurations that are employed in aircraft navigation systems (1a);
    c. describing how different aircraft navigation systems are integrated together (1a).
6. Demonstrate an understanding of different types of navigation systems by
    a. explaining the theory of operation of VOR/LOC navigation systems (1a);
    b. explaining the theory of operation of Glideslope/Marker Beacon systems (1a);
    c. explaining the theory of operation of distance measuring equipment (DME) systems (1a);
    d. explaining the theory of operation of GPS (satellite navigation) systems (1a);
    e. explaining the theory of operation of transponder systems (1a).
7. Demonstrate a basic understanding of the FAA required aircraft navigation systems functional test by
    a. explaining the use of various types of common ramp use test equipment (1a);
    b. explaining the use of various types of common ramp use power measurement devices (1a).
8. Demonstrate an ability to operate and test aircraft navigation systems using common and peculiar testing equipment by
    a. performing operational test on VOR/LOC navigation equipment (1a, 1b, 2c, 2e);
    b. performing operational test on Glideslope/Marker Beacon navigation equipment (1a, 1b, 2c, 2e);
    c. performing operational test on DME navigation systems (1a, 1b, 2c, 2e);
    d. performing operational test on GPS navigation systems (1a, 1b, 2c, 2e);
    e. performing operational test on transponder systems (1a, 1b, 2c, 2e).
9. Demonstrate the ability to troubleshoot and isolate aircraft navigation system faults by
    a. locating aircraft navigation system faults through the use of operational knowledge (1a, 1b, 2c, 2e);
    b. locating aircraft navigation systems faults through the use of published information (1a, 1b, 2c, 2e);
    c. locating aircraft navigation systems faults through the use of test equipment (1a, 1b, 2c, 2e).

AVNC 1372 - Air Traffic Control Systems

General

Course Key
15568

Course Rubric
AVNC

Course Number
1372

Course Title
Air Traffic Control Systems Line Maintenance

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Technical Local Need

Description
(3-2-3) A course (aircraft line maintenance) in the theory, operation, testing, and inspection of Air Traffic Control Radar-based surveillance systems and Space-based surveillance systems to include; ATCRBS elementary air traffic control systems (Mode A, Mode C, and Mode S) and Automatic Dependent Surveillance and Broadcast (ADS-B) and Mode S Extended Squitter(ES) systems. This course will also address the theory, operation, testing, and inspection of aircraft Traffic Collision and Avoidance Systems (TCAS) as well. The student will receive training on the setup and use of common and peculiar test equipment associated with the testing of Aircraft Traffic Control Surveillance Systems (ATCRBS) and Traffic Collision Avoidance Systems (TCAS).

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Display professional habits (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of the role and regulations of the FAA as it pertains to airframe and powerplant technicians and repairmen (1a, 1b, 2c, 2e).
3. Demonstrate an understanding of U.S. airspace and the different levels of FAA Air Traffic Control Systems (1a, 1b, 2c, 2e).
4. Demonstrate an understanding of U.S. NextGen and FANS and its impact on Air Traffic Control and its impact on aircraft equipment requirements (1a, 1b, 2c, 2e).
5. Demonstrate an understanding of avionics equipment certification and avionics maintenance procedures (1a, 1b, 2c, 2e).
6. Demonstrate an understanding of the principles and levels of aircraft navigation (IFR/VFR) (1a, 1b, 2c, 2e).
7. Demonstrate an understanding of various aircraft navigation system designs, configurations, and system integration (1a, 1b, 2c, 2e).
8. Demonstrate an understanding of the theory and operating principles of Air Traffic Control Radar Based Mode A, Mode C, and Mode S systems (1a, 1b, 2c, 2e).
9. Demonstrate an understanding of the theory and operating principles of Air Traffic Control Space based ADS-B and Mode S (ES) systems (1a, 1b, 2c, 2e).
10. Demonstrate an understanding of the theory and operating principles of Traffic Collision and Avoidance systems (TCAS) (1a, 1b, 2c, 2e).
11. Demonstrate an overall understanding of required system functional test procedures Air Traffic Control Surveillance Systems to include a working knowledge and operational use of various common ramp test equipment and power measurement devices (1a, 1b, 2c, 2e).
12. Operate and perform maintenance on Air Traffic Control surveillance systems to include inspections, removal/replacement, and required testing (1a, 1b, 2c, 2e).

BCIS 1305 - Business Computer Applications

General

Course Key
16274

Course Rubric
BCIS

Course Number
1305

Course Title
Business Computer Applications

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-3) Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet. (BCIS 1305 is included in the Business Field of Study.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

BIOL 1406 - Biology Scienc Majors I (Lecture + Lab)

General

Course Key
16275

Course Rubric
BIOL

Course Number
1406

Course Title
Biology for Science Majors I (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. Required Prerequisite: TSI met in Math, and Reading and Writing. Recommended Prerequisite: MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Must be TSI met in Math.
Type
Math Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12184) or MATH-0116; Minimum grade C; # Take MATH-DEV2 or MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Reading.
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Writing.
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Recomended Prerequisite: MATH-1314
Type
Recomended Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-1314(11733) or math-1314;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

BIOL 1406 - Biol Scienc Majors I (Lecture/Lab) HNS

General

Course Key
16276

Course Rubric
BIOL

Course Number
1406

Course Title
Biology for Science Majors I (Lecture + Lab) Honors

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. Required Prerequisite: TSI Met in Reading and Writing. TSI Met in Algebraic Math pathway Recommended Prerequisite: MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Math Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Reading.
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Writing.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

Recomended Prerequisite: MATH-1314
Type
Recomended Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-1314(11733) or MATH-1314(12859);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

BIOL 1407 - Biology for Science Maj II (Lec + Lab)

General

Course Key
16277

Course Rubric
BIOL

Course Number
1407

Course Title
Biology for Science Majors II (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Continuation of BIOL-1406. The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Required Prerequisite: BIOL-1406 Recommended Prerequisite: MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Required Prerequisite: BIOL-1406
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take BIOL-1406(14358);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Recommended Prerequisite: MATH-1314
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-1314(11733) or MATH-1314(12859);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

BIOL 1408 - Biology Non-Science Maj I (Lec/Lab) HNS

General

Course Key
16279

Course Rubric
BIOL

Course Number
1408

Course Title
Biology for Non-Science Majors I (Lecture + Lab) Honors

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Required Prerequisite(s): TSI Met in Reading and Writing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite. Not TSI met in Reading.
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite. Not TSI met in Writing.
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

BIOL 1408 - Biology for Non-Science Maj I (Lec/Lab)

General

Course Key
16278

Course Rubric
BIOL

Course Number
1408

Course Title
Biology for Non-Science Majors I (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Required Prerequisite(s): TSI Met in Reading and Writing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite. Not TSI met in Reading.
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite. Not TSI met in Writing.
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

BIOL 1409 - Biology Non-Science Majors II (Lec/Lab)

General

Course Key
16280

Course Rubric
BIOL

Course Number
1409

Course Title
Biology for Non-Science Majors II (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Required Prerequisite(s): TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite. Not TSI met in Reading.
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite. Not TSI met in Writing.
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

BIOL 1409 - Biol Non-Science Majors II (Lec/Lab) HN

General

Course Key
16281

Course Rubric
BIOL

Course Number
1409

Course Title
Biology for Non-Science Majors II (Lecture + Lab) Honors

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Required Prerequisite(s): TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite. Not TSI met in Reading.
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite. Not TSI met in Writing.
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

BIOL 2306 - Environmental Biology (lecture)

General

Course Key
16282

Course Rubric
BIOL

Course Number
2306

Course Title
Environmental Biology (Lecture)

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Required Prerequisite: TSI Met in Math, and Reading and Writing. Recommended Prerequisite: MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take math-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12184) or MATH-0116; Minimum grade C; # Take MATH-DEV2 or MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

BIOL 2316 - Genetics (Lecture)

General

Course Key
16283

Course Rubric
BIOL

Course Number
2316

Course Title
Genetics (Lecture)

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering. Required Prerequisite: BIOL-1406 and BIOL-1407 Recommended Prerequisite: MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take BIOL-1406 BIOL-1407;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take math-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

BIOL 2389 - Academic Cooperative

General

Course Key
16284

Course Rubric
BIOL

Course Number
2389

Course Title
Academic Cooperative

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
5

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-1-5) An instructional program designed to integrate on-campus study with practical hands-on work experience in the biological sciences/life sciences. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of living organisms and their systems. Required Prerequisite: BIOL-1406, BIOL-1407 and CHEM-1411 Corequisite: Instructor Approval

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take BIOL-1406 BIOL-1407 CHEM-1411;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

BIOL 2401 - Anatomy and Physiology I (Lecture/Lab)

General

Course Key
16285

Course Rubric
BIOL

Course Number
2401

Course Title
Anatomy and Physiology I (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Content may be either integrated or specialized. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses. Required Prerequisite: TSI Met in Math, and Reading and Writing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for Prerequisite/Corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12184) or MATH-0116; Minimum grade C; # Take MATH-DEV2 or MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

BIOL 2402 - Anatomy/Physiology II (Lecture + Lab)

General

Course Key
16286

Course Rubric
BIOL

Course Number
2402

Course Title
Anatomy and Physiology II (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2)Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive(including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics.) Required Prerequisite: BIOL-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take BIOL-2401(12);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

BIOL 2406 - Environmental Biology (Lecture + Lab)

General

Course Key
16287

Course Rubric
BIOL

Course Number
2406

Course Title
Environmental Biology (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Laboratory activities will reinforce principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Required Prerequisite: TSI Met in Math, and Reading and Writing. Recommended Prerequisite: MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for Prerequisite/Corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12184) or MATH-0116; Minimum grade C; # Take MATH-DEV2 or MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for Prerequisite/Corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#Take MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

BIOL 2420 - Microbiology Non-Science Maj (Lec/Lab)

General

Course Key
16288

Course Rubric
BIOL

Course Number
2420

Course Title
Microbiology for Non-Science Majors (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-4).This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. Lab activities cover basics of culture and identification of bacteria and microbial ecology. Required Prerequisite: TSI Met in Math, and Reading and Writing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12184) or MATH-0116; Minimum grade C; # Take MATH-DEV2 MATH-PATH or MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-DV22; # Take MATH-NCR1 MATH-DV23;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631); Minimum grade C;
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

BIOL 2421 - Microbiology for Science Maj (lec/lab)

General

Course Key
16289

Course Rubric
BIOL

Course Number
2421

Course Title
Microbiology for Science Majors (Lecture + Lab) +

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-4) Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Laboratory activities will reinforce principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. Required Prerequisite: CHEM-1411, BIOL-1406 and BIOL-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Required Prerequisites: BIOL-1406, BIOL-1407, and CHEM-1411
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take BIOL-1406 BIOL-1407 CHEM-1411;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

BMGT 1301 - Supervision

General

Course Key
48

Course Rubric
BMGT

Course Number
1301

Course Title
Supervision

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). The role of the supervisor. Includes managerial functions as applied to leadership, counseling, motivation, and human relations skills.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the role, characteristics, and skills of a supervisor; identify the principles of management at the supervisory level; explain the human relations skills necessary for supervision; explain motivational techniques; and cite examples of how motivational techniques can be used by a supervisor in a working environment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the role of the supervisor by:
    a. explaining the supervisory role at each organizational level (1a, 1b);
    b. explaining the skills needed by the supervisor at each organizational level (1a, 1b);
    c. defining the decision-making process (2b);
    d. identifying the staffing and training process (1b);
    e. explaining the importance of delegation (1a, 2c);
    f. defining supervision terminology (1a, 1b).
2. Define the human relations skills necessary for supervision by:
    a. defining the communication process (1a, 2c);
    b. selecting the appropriate communication style for the situation (1a, 2c);
    c. demonstrating the ability to communicate one-on-one and in groups (1d, 1e).
3. Explain motivational techniques by:
    a. explaining supervisor leadership skills, styles, and qualities (1a, 1b);
    b. explaining motivation theories and applications used by the supervisor (1a, 1b).

BMGT 1305 - Communications in Management

General

Course Key
69

Course Rubric
BMGT

Course Number
1305

Course Title
Communications in Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Basic theory and processes of communication skills necessary for the management of an organization's workforce.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the communication process; create solutions to major communication barriers; describe how communication contributes to effective management.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the importance of communication in management by:
    a. analyzing the communication process (1a, 1b);
    b. explaining the value of effective listening (1d, 1e);
    c. explaining the differences between verbal and non-verbal communication (1d, 1e);
    d. defining barriers to communication and discussing ways to overcome them (1a, 1b, 1d, 1e).
2. Describe how communication contributes to effective management by:
    a. explaining the value of communication across cultures (3a, 3b, 3c, 3d);
    b. discussing the value of diversity within a business environment (1d, 1e, 2b, 2c, 2d).
3. Demonstrate oral and written communication skills by:
    a. demonstrating the ability to write effective letters, memos, emails, and reports (1a, 1b);
    b. demonstrating correct use of grammar and punctuation in business messages (1a, 1b);
    c. demonstrating the ability to prepare and deliver oral presentations (1a, 1b).
4. Demonstrate the ability to perform a job search by:
    a. evaluating his/her skills (1a, 1b, 2b, 2c, 2d, 2e);
    b. developing a resume and cover letter (1a, 1b, 2b, 2c, 2d, 2e);
    c. identifying effective techniques for job interviews (1a, 1b, 2b, 2c, 2d, 2e);
    d. developing interview follow-up techniques (1a, 1b, 2b, 2c, 2d, 2e).

BMGT 1313 - Principles of Purchasing

General

Course Key
9573

Course Rubric	Course Number	Course Title
BMGT	1313	Principles of Purchasing

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) The purchasing process as it relates to such topics as inventory control, price determination, vendor selection, supply chain management, negotiation techniques, and ethical issues in purchasing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the purchasing function as it relates to departments within the company; identify the basic concepts used in purchasing decisions including negotiation techniques and ethical issues; explain the relationships of materials management and inventory control with the purchasing process; and explain supply chain management.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terms and how they relate to the overall concept of purchasing by:
    a. identifying terms and definitions used in purchasing and its impact on supply chain management to include materials management and inventory control (1a, 1b, 2c);
    b. describing the purchasing function as it relates to departments within the company (1a, 1b, 2c);
    c. identifying the basic concepts used in purchasing decisions including negotiation techniques and ethical issues (1a, 1b, 2c).
2. Demonstrate an understanding of the legal aspects and regulatory agencies as they relate to purchasing by:
    a. identifying terms and definitions used to regulate purchasing operations (1a, 1b, 2c);
    b. identifying various local, state, and federal agencies that impact purchasing operations (1a, 1b, 2c).
3. Demonstrate the ability to apply decision-making techniques based on time, materials, and space by:
    a. gathering all needed reference data to solve a complex purchasing problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple-step decision-making process to solve a purchasing problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to a purchasing problem in a group setting (1a, 1b, 1c, 2b, 2c, 2e).

BMGT 1327 - Principles of Management

General

Course Key
8338

Course Rubric	Course Number	Course Title
BMGT	1327	Principles of Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Concepts, terminology, principles, theories, and issues in the field of management.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain various theories, processes, and functions of management; apply theories to a business environment; identify leadership roles in organizations; and describe elements of the communication process.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of management terminology and basic characteristics by:
    a. defining management and the characteristics of an organization (1b);
    b. identifying functions of management and the essential managerial skills required at each managerial level (1b);
    c. explaining how managers differ from non-managerial employees (1a);
    d. evaluating the rewards and challenges of managers (1b).
2. Demonstrate an understanding of the importance and core components of management by:
    a. explaining why strategic management is important (1a);
    b. demonstrating an understanding of the organizational structure, culture, and design (1b);
    c. demonstrating an understanding of human resource management (1b);
    d. explaining the importance of social responsibility and ethical behavior within a business environment (1b);
    e. discussing the value of diversity within a business environment (1b);
    f. demonstrating an understanding of the control process (1b).
3. Demonstrate an understanding of leadership theories and styles by:
    a. defining leadership and its importance (1b);
    b. explaining similarities and differences between leadership and management (1b);
    c. analyzing how leaders use motivational theories to improve performance (1b).
4. Demonstrate an understanding of the communication process by:
    a. defining communication and its importance (1b);
    b. explaining the use of groups and teams (1b);
    c. explaining the utilization of technology in communication (1b);
    d. demonstrating the ability to communicate one-on-one and in groups (1a, 1b).

BMGT 1331 - Production and Operations Management

General

Course Key
9574

Course Rubric	Course Number	Course Title
BMGT	1331	Production and Operations Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Fundamentals of techniques used in the practice of production and operations management. Includes location, design, and resource allocation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify factors of plant location and design, resource allocation, and equipment selection and utilization; and use planning, scheduling, inventory management, and quality control techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terms and how they relate to the overall concept of production and operations management by:
    a. identifying terms and definitions used in production and operations management (1a, 1b, 2c);
    b. describing the production and operations management function and how it impacts logistics and supply chain management (1a, 1b, 2c);
    c. identifying the basic concepts used in production and operations management decisions including negotiation techniques and ethical issues (1a, 1b, 2c).
2. Demonstrate an understanding of the production and operations management role in accomplishing a firm's objectives by:
    a. identifying factors of plant location and design, resource allocation, and equipment selection and utilization (1a, 1b, 2c);
    b. demonstrating the ability to use planning, scheduling, inventory management, and quality control techniques (1a, 1b, 2c).
3. Demonstrate the ability to apply decision-making techniques based on time, materials, and space by:
    a. gathering all needed reference data to solve a complex production and operations problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple-step decision-making process to solve a production and operations problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to a production and operations problem in a group setting (1a, 1b, 1c, 2b, 2c, 2e).

BMGT 1341 - Business Ethics

General

Course Key
8337

Course Rubric	Course Number	Course Title
BMGT	1341	Business Ethics

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define business ethics; identify the consequences of unethical business practices; describe reasoning for analyzing ethical dilemmas; describe different ethical views; explain how business, government, and society function interactively; and explain corporate social responsibility.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the need for business ethics by:
    a. defining ethics and its impact on personal behavior (1a, 1b, 1c);
    b. explaining the role of the business firm as a member of the community (1a, 1b, 1c);
    c. explaining the impacts to society of business decisions (1a, 1b, 1c, 2c).
2. Demonstrate an understanding of the major types of ethical reasoning that persons in business can use to analyze ethical dilemmas by:
    a. explaining the concepts of consequentialism (1a, 1b, 1c);
    b. explaining the concepts of non-consequentialism (1a, 1b, 1c).
3. Demonstrate an understanding of how business, government, and society function as an interactive system by:
    a. describing the relationship of businesses to society (1a, 1b, 1c, 2c, 2d);
    b. describing the relationship of business and government in respect to ethical behavior (1a, 1b, 1c, 2c);
    c. describing the responsibility of government to society (1a, 1b, 1c, 2c, 2d).
4. Demonstrate an understanding of the concept of corporate social responsibility by:
    a. defining social responsibility as it pertains to the corporate business world (1a, 1b, 1c, 2c, 2d);
    b. describing the roles of social responsibility by corporations in the current social environment (1a, 1b, 1c, 2c, 2d).
5. Demonstrate an understanding of social and ethical threats emerging from rapid technological change by:
    a. discussing the impact of technological advances in production methods and labor demand (1a, 1b, 1c, 2c, 2d);
    b. discussing the limits of new product development and consumer use (1a, 1b, 1c, 2c);
    c. discussing the threats to commonly accepted beliefs challenged by new technology (1a, 1b, 1c, 2c, 2d).

BMGT 2309 - Leadership

General

Course Key
111

Course Rubric	Course Number	Course Title
BMGT	2309	Leadership

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate, influence and identify leadership styles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Determine individual leadership styles; distinguish differences between leadership and management; explain the effects of leadership style in various organizational environments; and apply principles of leadership.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a basic understanding of leadership concepts by:
    a. defining leadership theories and terminology (1a, 1b, 1e);
    b. explaining the idea and importance of leadership (1a, 1b, 1e, 2a, 2b, 2e, 3e);
    c. contrasting a manager and leader (1a, 1b, 2b, 2c, 2e, 2f);
    d. defining and analyzing leadership styles, traits, skills, and competencies (1a, 1b, 2a, 2b, 2c, 2e, 2f).
2. Demonstrate how to develop individual leadership and inspire people to perform in an organization by:
    a. determining organizational effectiveness and relationships at each level (1a, 1b, 2a, 2b, 2c, 2e, 2f);
    b. assessing effective leadership styles and strategies (1a, 1b, 2a, 2b, 2c, 2e, 2f);
    c. demonstrating communication, decision-making, and collaborative skills for a diverse group (1a, 1b, 2a, 2b, 2c, 2e, 2f, 3e).
3. Demonstrate the ability to complete a capstone leadership project by:
    a. presenting proposed project idea (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 3e);
    b. presenting completed project to class (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 3e).

BMGT 2331 - Principles of Quality Management

General

Course Key
12984

Course Rubric	Course Number	Course Title
BMGT	2331	Principles of Quality Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Includes planning and implementing quality programs in an organization and analyzing cost/benefit of quality. Also covers the impact of employee empowerment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define the role of quality in production and service systems; explain concepts related to quality cost/benefit; and define the quality improvement process.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terms and how they relate to the overall concept of quality by:
    a. identifying terms and definitions used in quality and its impact on supply chain management (1a, 1b, 2c);
    b. defining the role of quality in production and service systems (1a, 1b, 2c);
    c. explaining concepts related to quality cost/benefit (1a, 1b, 2c).
2. Demonstrate an understanding of the quality improvement process by:
    a. identifying terms and definitions used to define quality improvement (1a, 1b, 2c);
    b. explaining the quality improvement process by using analyses (1a, 1b, 2c).
3. Demonstrate the ability to apply decision-making techniques based on time, materials, and space by:
    a. gathering all needed reference data to solve a complex quality problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple-step decision-making process to solve a quality problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to a quality problem in a group setting (1a, 1b, 1c, 2b, 2c, 2e).

BMGT 2341 - Strategic Management

General

Course Key
13742

Course Rubric	Course Number	Course Title
BMGT	2341	Strategic Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Strategic management process, including analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the processes involved in management strategy development; and develop an organizational strategic management plan.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the processes for developing management strategy by:
    a. explaining how to apply effective methods of assessing changes and trends in the firm's external environment (1a, 1b, 2c);
    b. analyzing a firm's internal environments for strengths and weaknesses and making recommendations (1a, 1b, 2c, 2d);
    c. explaining the importance of an organization's public perception as being ethical and concerned for the welfare of all its stakeholders (1a, 1b, 1c, 2c);
    d. identifying the relationship between strategy formulation and the strategic control process (1a, 1b, 2c).
2. Demonstrate an understanding of the importance of developing a strategic management plan for an organization by:
    a. evaluating assigned cases using material for historical data and research to develop a strategic plan (1a, 1b, 2c);
    b. researching material to assess a competitor's strategy and potential reactions to strategic plans (1a, 1b, 2c);
    c. analyzing financial and ratio analysis to measure the fiscal condition of the firm, and its relation to short- and long-range goals and strategic plans (1c, 1b, 2a, 2c);
    d. developing a trend and SWOT analysis (1a, 1b, 2c, 2d);
    e. developing and presenting a 3-5 year strategic management plan for an organization (1a, 1b, 2c, 2d).

BMGT 2482 - Co-op Edu - Business Admin & Management

General

Course Key
15621

Course Rubric	Course Number	Course Title
BMGT	2482	Cooperative Education - Business Administration and Management, General

Semester Credit Hours	Lecture Hours	Lab Hours
4	1	21

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-1-21) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. The student should have demonstrated competence approved by the instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify and implement a project related to his/her job by:
    a. collaborating with employer and professor to determine the need, value, approval, and implementation (1a, 1b, 1d, 2b, 2c, 3a, 3b, 3e);
    b. completing required Tarrant County College documentation (1a, 1b, 2b, 2c, 3a, 3b, 3e);
    c. utilizing appropriate research techniques to compile, analyze, and assemble information (1a, 1b, 2b, 2c, 2e, 3a, 3b, 3e);
    d. preparing the typewritten portfolio (1a, 1b, 2b, 2c, 3a, 3b, 3e).
2. Demonstrate the ability to manage time and deadlines by:
    a. preparing and submitting all cooperative forms (1a, 1b, 2b, 2c, 3a, 3b, 3e);
    b. scheduling cooperative visit appointments to meet with supervisor and professor (1d, 1e, 2e, 3a, 3c, 3d, 3e);
    c. completing and participating in assigned coursework (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 3e).
3. Prepare and present oral presentations by:
    a. presenting proposed co-op project idea to supervisor and professor during the first co-op visit (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 3e);
    b. presenting completed co-op project to class (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 3e);
    c. presenting completed co-op project to supervisor, professor, and others as deemed necessary at the last cooperative visit (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 3e).

BTND 1371 - Introduction to Bartending/Mixologist

General

Course Key
14764

Course Rubric
BTND

Course Number
1371

Course Title
Introduction to Bartending/Mixologist

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) The study of mixologist as it relates to the act of bartending, exploring current issues and trends in mixology, service of responsible alcohol service, guest service, purchasing/inventory control of alcohol service and sanitation and safety.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand the current issues and trends in the beverage industry, including coffee, tea, soft drinks, wine, beer, and spirits (1a, 1b, 2c, 2d).
2. Demonstrate knowledge of the importance of responsible alcohol service (1a, 2b, 2c).
3. Demonstrate knowledge of creating and maintaining a bar business, including bar equipment and financial information (1a, 2b).
4. Demonstrate an understanding of the art of mixology, guest service skill training, and proper bar etiquette (2b, 2c).
5. Demonstrate an understanding of the importance of purchasing, receiving, storage, and inventory control (1a, 1b, 1c).
6. Demonstrate the proper cleaning and sanitizing of bar equipment and the bar business (1a, 1b).

BUSG 1302 - E-Business Management

General

Course Key
4500

Course Rubric
BUSG

Course Number
1302

Course Title
E-Business Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Introduction to business. Includes the Internet, infrastructure for electronic commerce, markup languages, web-based tools and software, security issues, and electronic payment systems. Also covers strategies for marketing, sales, and purchasing; legal, ethical, and tax issues; and management functions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify elements for developing a web page; identify security issues; describe transaction processing systems; identify ethical/legal concerns; and discuss tax issues relating to e-commerce transactions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of elements for developing an infrastructure by:
    a. defining the meaning, scope, and elements of e-business, including how it differs from e-commerce (1a, 2c, 2d, 2e);
    b. describing the major types of e-business and e-commerce (1a, 2c, 2d, 2e);
    c. outlining the development and growth of e-business (1a, 2c, 2d, 2e);
    d. listing the barriers to adoption of e-business and e-commerce (1a, 2c, 2d, 2e);
    e. listing key business concepts and strategies applicable to e-business (1a, 2c, 2d, 2e);
    f. describing the major business models being successfully implemented by companies on the web (1a, 2c, 2d, 2e);
    g. describing the hardware and software technologies utilized to build an e-business infrastructure within an organization and with third parties (1a, 2c, 2d, 2e).
2. Demonstrate an understanding of appropriate hardware and software technologies for web page development and for implementation, utilization, and maintenance within the organization by:
    a. explaining the origin of the internet, the role of internet protocols, and the current structure of the internet (1b, 2c, 2d, 2e);
    b. discussing how the internet and web features and services support e-business and e-commerce (1b, 2c, 2d, 2e);
    c. identifying the hardware and software requirements necessary to enable employee access to the internet and the hosting of e-commerce services (1b, 2c, 2d, 2e);
    d. describing current markup languages (i.e., HTML, XHTML, etc.) in use (1b, 2c, 2d, 2e);
    e. identifying common elements of current markup languages (1b, 2c, 2d, 2e);
    f. explaining how current and emerging networking technologies such as wireless and cellular access have affected e-business (1b, 2c, 2d, 2e);
    g. evaluating how current and emerging networking technologies such as wireless and cellular access have affected e-business (1b, 2c, 2d, 2e).
3. Demonstrate an understanding of relevant security issues by:
    a. discussing the scope of internet and e-commerce-related crime and security issues (1a);
    b. identifying key physical, hardware, software, and organizational security threats (1a);
    c. listing the tools and software used to identify and prevent security breaches and to secure e-business systems, organizational processes, and structures (1a);
    d. identifying popular security protocols (1a);
    e. explaining basic concepts related to privacy, including the different methods used to protect online privacy (1a);
    f. explaining the effect security has on the use of technology (1a).
4. Demonstrate an understanding of transaction processing systems from traditional and e-business organizations by:
    a. defining the elements of traditional payment systems (1a, 2c, 2d, 2e);
    b. describing the main elements of electronic supply chain management, e-procurement, payment, and communication transaction systems (1a, 2c, 2d, 2e);
    c. explaining how the major e-commerce payment mechanisms have transformed and/or affected the traditional processes (1a, 2c, 2d, 2e);
    d. explaining the risks and benefits of implementing electronic supply chain management, e-procurement, and communication transaction systems (1a, 2c, 2d, 2e).
5. Demonstrate an understanding of the main ethical, legal, social, and political issues raised by e-business by:
    a. listing the ethical, legal, social, and political issues (1a, 2c);
    b. discussing tax issues relating to e-commerce transactions (1a, 2c);
    c. identifying the opportunities and challenges involved in e-commerce globalization (1a, 2c).

6. Discuss e-commerce marketing and marketing communications by:
    a. identifying the types of internet consumers (1a, 1b, 2c, 2d, 2e);
    b. discussing basic concepts of consumer behavior and purchasing decisions (1a, 1b, 2c, 2d, 2e);
    c. describing the basic marketing concepts needed to understand internet marketing (1a, 1b, 2c, 2d, 2e);
    d. explaining the main technologies that support online marketing (1a, 1b, 2c, 2d, 2e);
    e. identifying the major forms of online marketing communications (1a, 1b, 2c, 2d, 2e);
    f. discussing the costs and benefits of online marketing communications (1a, 1b, 2c, 2d, 2e).

BUSG 1307 - Entrepreneurship and Economic Develop

General

Course Key
13637

Course Rubric	Course Number	Course Title
BUSG	1307	Entrepreneurship & Economic Development
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of entrepreneurship as an economic development strategy. Includes community support systems for entrepreneurs.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify community economic issues; explain the benefits of entrepreneurship as an economic development strategy; identify characteristics of successful entrepreneurs in a local community; develop a collaborative support system for entrepreneurs.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of entrepreneurship and the contribution entrepreneurs make to an economy by:
    a. defining entrepreneurship (1a, 1b, 2a, 2c, 2d);
    b. identifying examples of entrepreneurship (1a, 1b, 2a, 2c, 2d);
    c. articulating the traits of an entrepreneur (1a, 1b, 2a, 2c, 2d);
    d. describing the importance of the entrepreneur's role in society (1a, 1b, 2a, 2c, 2d);
    e. providing examples of how to serve needs in their own community through entrepreneurial actions (1a, 1b, 2a, 2c, 2d);
    f. recognizing opportunities to be entrepreneurial in their daily lives (1a, 1b, 2a, 2c, 2d).
2. Demonstrate an understanding of the entrepreneur's role in creating value in an economic system by:
    a. defining value and describing why goods of value must be produced by entrepreneurs and businesses (1a, 1b, 2a, 2c, 2d);
    b. explaining the difference between subjective value and competing theories of value, such as the labor theory of value (1a, 1b, 2a, 2c, 2d);
    c. identifying the difference between creating value and creating work (1a, 1b, 2a, 2c, 2d);
    d. discussing how an entrepreneur creates value for society (1a, 1b, 2a, 2c, 2d);
    e. explaining the essential role entrepreneurs play in creating economic growth (1a, 1b, 2a, 2c, 2d);
    f. understanding the entrepreneur's role in discovering and innovating new and better ways of solving problems to meet society's needs (1a, 1b, 2a, 2c, 2d).
3. Demonstrate how entrepreneurs can use economics to make better decisions by:
    a. defining scarcity and opportunity cost (1a, 1b, 2a, 2b, 2c, 2d);
    b. recognizing that individuals face the problem of scarcity in deciding how to allocate their resources, including their time (1a, 1b, 2a, 2b, 2c, 2d);
    c. identifying how all economic choices involve tradeoffs and explaining the concept of opportunity cost (1a, 1b, 2a, 2b, 2c, 2d);
    d. identifying how entrepreneurs may use economics to achieve market-based solutions (1a, 1b, 2a, 2b, 2c, 2d).
4. Demonstrate an understanding of the meaning of profit and loss to a business by:
    a. explaining the function of prices (1a, 1b, 2a, 2b, 2c, 2d);
    b. identifying the necessary requirements for a functioning price system (1a, 1b, 2a, 2b, 2c, 2d);
    c. describing the role of profit and loss in the allocation of resources in society (1a, 1b, 2a, 2b, 2c, 2d);
    d. understanding how profits signal the successful serving of the needs of others (1a, 1b, 2a, 2b, 2c, 2d).
5. Demonstrate an understanding of what institutional factors encourage entrepreneurship in a society by:
    a. identifying the ways in which individuals in an economic system respond to incentives and how positive and negative incentives influence behavior in predictable ways (1a, 1b, 2a, 2c, 2d);
    b. describing the role institutions, policies, and regulations play in stimulating or stifling an individual's pursuit of entrepreneurship ventures and activities (1a, 1b, 2a, 2c, 2d).

BUSG 1315 - Small Business Operations

General

Course Key
138

Course Rubric	Course Number	Course Title
BUSG	1315	Small Business Operations

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Operating a small business. Emphasizes management functions including planning, leading, organizing, staffing, and controlling operations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the aspects of operating a small business; describe human resource functions including employee development; explain the elements of total quality management; and compare purchasing procedures, inventory control, and computerized operations of small businesses.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the role of small businesses in free enterprise economies by:
    a. explaining the forces that are driving the growth in small business ownership and entrepreneurship (1a, 1b);
    b. explaining how free enterprise economies work and how small businesses fit into them (1a, 1b);
    c. describing the contributions small businesses make to the U.S. economy (1a, 1b, 2a, 2c).
2. Demonstrate an understanding of how the business plan is used to successfully start, operate, and control a small firm by:
    a. describing a business plan (1a, 1b);
    b. explaining the various purposes for a business plan (1a, 1b);
    c. identifying and developing the components of a business plan (1a, 1b);
    d. demonstrating proper development and formatting of a business plan (1b, 2a, 2c).
3. Demonstrate an understanding of the techniques used to plan and control the financial aspects of a small firm by:
    a. defining fixed and variable costs (1a, 1b);
    b. identifying examples of fixed and variable costs (1a, 1b);
    c. identifying the financial statements needed to operate a business (1a, 1b);
    d. explaining the information contained on the income statement (1b, 2c);
    e. using the balance sheet equation to see the relationship between assets, liabilities, and equity (1b, 2c);
    f. using the cash flow statement to guide the firm's operations (1b, 2c);
    g. identifying the tax returns that a small firm is required to file (1a, 1b);
    h. examining the use of computers and financial software to facilitate the preparation of financial statements and aid in tax compliance (1a, 2a, 2c).
4. Demonstrate an understanding of management and leadership skills for operating a small business by:
    a. describing the tasks handled by managers (1a, 1b);
    b. describing the various styles of leadership (1a, 1b);
    c. explaining what makes an effective leader (1a, 1b);
    d. explaining how to build the kind of company culture and structure to support the owner's/founder's mission and goals and to motivate employees to achieve them (1b, 2c);
    e. describing ways in which small owners can motivate their employees to achieve higher levels of performance (1b, 2c);
    f. developing guidelines for a small firm to act legally and ethically (1b, 1c, 2a, 2c).
5. Demonstrate an understanding of the role human resources play in the management of a small business by:
    a. explaining the major responsibilities of human resources (1a, 1b);
    b. identifying the laws affecting employees (1a, 1b);
    c. describing the importance of hiring the right employees and how to avoid making hiring mistakes (1a, 1b, 2a, 2c);
    d. explaining the importance of providing training and development opportunities to employees (1b, 2c);
    e. identifying training methods best suited for small businesses (1a, 1b).
6. Devise a plan for business operations that will ensure the business delivers on its promises to customers by:
    a. identifying the types of businesses and their production distribution chain (1a, 1b);
    b. explaining the components of a purchasing plan (1a, 1b);
    c. explaining the principles of total quality management (TQM) including Lean, 5S, and Six Sigma and their impact on quality (1a, 1b);
    d. describing the legal implications of the purchasing function (1a, 1b);
    e. explaining techniques used to manage suppliers and inventory (1b, 2a, 2c);
    f. explaining how technology can be used to benefit a small firm (1b, 2a, 2c, 2e).

BUSG 1341 - Small Business Financing

General

Course Key
141

Course Rubric
BUSG

Course Number
1341

Course Title
Small Business Financing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Financial structure of a small business. Includes business financing, budgeting, record keeping, taxation, insurance, and banking.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify business financing options; estimate funds for starting a new business and purchasing or expanding an existing business; prepare a budget; identify types of financial records; describe record keeping requirements; identify tax matters pertaining to a small business; and describe the concepts of risk management.

1. Demonstrate an understanding of the basic economic factors affecting finance by
    a. defining basic economic terms (1a, 1b);
    b. explaining basic economic concepts of finance (1a, 1b, 2c);
    c. listing the factors affecting interest rates (1a, 1b);
    d. examining the three basic forms of taxation (1a, 1b).
2. Demonstrate an understanding of the importance of financial management and planning by
    a. describing the basic management functions (1a, 1b);
    b. comparing and contrasting the basic forms of business ownership (1b, 2c);
    c. identifying the sections included in a business plan (1a, 1b);
    d. explaining the two types of financing for a firm (1a, 1b);
    e. listing sources of financing (1a, 1b);
    f. estimating funding needed to start or purchase a firm and then grow the business (2a, 2c, 2d);
    g. explaining the importance of the business plan as it relates to financing a small firm (1a, 1b, 2c).
3. Demonstrate an understanding of the financial statements used by small firms for recordkeeping by
    a. identifying the basic financial statements used by businesses (1a, 1b);
    b. examining computerized operations that can be employed to facilitate recordkeeping requirements and to prepare financial statements (1a, 1b, 2c);
    c. explaining the information presented on an income statement (1a, 1b, 2c);
    d. explaining the components of a balance sheet (1a, 1b, 2c);
    e. explaining the three activities presented on the statement of cash flows (1a, 1b, 2c);
    f. comparing and contrasting how various business formations are taxed (1b, 2a, 2c, 2d);
    g. examining problems with financial statements (1b, 2c).
4. Demonstrate an understanding of how to perform financial statement analysis by
    a. identifying the purpose of financial statement analysis (1a, 1b);
    b. explaining the three methods of analyzing financial statements (1a, 1b);
    c. identifying the types of business ratios (1a, 1b);
    d. performing financial statement analysis on a small firm's financial statements (1b, 2c, 2d);
    e. comparing a firm's ratios to other companies in the same industry using industry averages and explaining the differences (1b, 2c, 2d).
5. Demonstrate an understanding of how pro forma financial statements are prepared and used in the budgeting process by
    a. identifying fixed expenses, variable expenses, and startup expenses (1a, 1b);
    b. performing break even analysis (1b, 2c, 2d);
    c. explaining the importance of a sales forecast to a business (1a, 1b);
    d. preparing budgeted or pro forma financial statements (1b, 2a, 2c, 2d);
    e. comparing pro forma financial statements to the firm's actual performance and explaining the differences (1b, 2a, 2c, 2d).
6. Demonstrate an understanding of techniques for managing working capital by
    a. explaining the concept of working capital management (1a, 1b);
    b. describing the asset and liability categories included in working capital (1a, 1b);
    c. determining the methods of managing disbursement and collection of cash to increase business profitability (1b, 2a, 2c, 2d);
    d. explaining how to manage current assets and current liabilities to maximize cash flow and profitability (1a, 1b, 2c).
7. Demonstrate an understanding of the purpose and need for capital budgeting and various capital budgeting techniques by
    a. explaining the purpose and need for capital budgeting (1a, 1b, 2a);
    b. listing and explaining the steps in making a capital budgeting decision (1a, 1b);
    c. explaining the relationship between the time value of money and inflation and how that relates to capital budgeting (1b, 2c, 2d);
    d. identifying all costs and benefits associated with a capital budgeting decision (1a, 1b);
    e. discussing the techniques used to make a decision regarding capital budgeting projects (1b, 2a, 2c);
    f. making a decision regarding capital budgeting projects based on calculations from capital budgeting techniques (1b, 2a, 2c, 2d);
    g. discussing the importance of following up, controlling, and taking corrective action after a capital budgeting decision has been made (1b, 2a, 2c, 2d).
8. Demonstrate an understanding of risk management by
    a. explaining the nature of risk as it pertains to businesses (1a, 1b);
    b. identifying the programs used by individuals and businesses in managing risk (1a, 1b);
    c. discussing the role that insurance plays in the transfer of risk (1b, 2c).

BUSG 1370 - Entrepreneurial Mindset

General

Course Key
13690

Course Rubric
BUSG

Course Number
1370

Course Title
Entrepreneurial Mindset

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Exploration of the values, abilities, and personal characteristics of successful entrepreneurs demonstrate. Skill development in the recognition, and application of innovative strategies and processes in start-up ventures and existing organizations. An overview of the wide-ranging nature of entrepreneurship: for profit, not for profit, and social enterprise. A central theme of the course will be to promote awareness of, interest in, and the development of an entrepreneurial mindset.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop an entrepreneurial mindset—the underlying beliefs and assumptions that drive the behaviors that allow entrepreneurs to succeed. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the skills and attributes of an entrepreneurial mindset (1a, 1b, 2a, 2c, 2d).
2. Understand the key concepts in entrepreneurship and innovation (1a, 1b, 2a, 2b, 2c, 2d).
3. Identify and analyze entrepreneurial opportunities that exist (1a, 1b, 2a, 2c, 2d).
4. Evaluate the feasibility of pursuing an opportunity that student has recognized (1a, 1b, 2a, 2c, 2d).
5. Describe an understanding of the process of transforming a simple idea into a sustainable business venture (1a, 1b, 2a, 2c, 2d).
6. Explain how to apply fundamental aspects of entrepreneurial thinking across disciplines and as a means of personal development (1a, 1b, 1c, 2a, 2c, 2d).

BUSG 2300 - Business Leadership Application

General

Course Key
12985

Course Rubric	Course Number	Course Title
BUSG	2300	Business Leadership Application
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Application of leadership skills that address social, political, economic, environmental, and legal issues.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate leadership skills through planning, implementing, and evaluating a project that addresses current social, political, ethical, international, and economic issues in business and community settings. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Develop a professional portfolio by:
    a. using personality testing or professional assessment(s) to build selfawareness (1a, 1b, 1c, 2c);
    b. developing a personal SWOT analysis (1a, 1b, 1c, 2b);
    c. developing an error free resume (1a, 1b, 1c, 2a, 2c, 2e);
    d. writing a personal vision statement that incorporates career and educational goals (1a, 1b, 1c, 2a, 2e).
2. Utilize community resources effectively by:
    a. interacting appropriately with business and civic leaders (1a, 1b, 1c, 2b);
    b. employing networking skills to develop professional contacts (1a, 1b, 1c, 2b);
    c. making appropriate choices in business grooming and attire (1a, 1b, 1c, 2b);
    d. demonstrating acceptable business etiquette (1a, 2b, 1c, 2b);
    e. completing service learning hours (1a, 1b, 1c, 2b);
    f. participating in field trips and community functions (1a, 1b, 1c, 2b).
3. Demonstrate collaborative skills within diverse groups by:
    a. employing appropriate communication skills in building community (1a, 1b, 1c, 2b);
    b. employing appropriate decision making skills within a group structure (1a, 1b, 1c, 2b, 2d);
    c. evaluating the effectiveness of collaborative efforts (1a, 2b, 1c, 2b).
4. Apply major course preparations to a business community team project by:
    a. utilizing research resources, including the internet (1a, 1b, 2a, 2c, 2d, 2e);
    b. comprehending the global implications of a research topic (1a, 1b, 2c, 2e);
    c. developing an effective PowerPoint with an oral presentation of the end product (1a, 1b, 2c, 2e);
    d. critiquing the end product (1a, 1b, 2e).

BUSG 2305 - Business Law/Contracts

General

Course Key
13673

Course Rubric	Course Number	Course Title
BUSG	2305	Business Law/Contracts
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define fundamental legal terminology regarding contracts, torts, property, and wills; differentiate between business ethics and legal issues; and explain required elements of torts, requirements of contracts, and various consumer laws as applied to businesses and individuals. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify various sources of law that govern the business environment (1a, 1b, 2a, 2c, 2d).
2. Explain the various forms of alternative dispute resolution (1a, 1b, 2a, 2c, 2d).
3. Understand the differences between intentional torts and negligence and demonstrate an understanding of how these torts arise in the business context (1a, 1b, 2a, 2c, 2d).
4. Recognize the elements of a contract and explain the importance of including these elements for enforcement of a contract (1a, 1b, 2a, 2c, 2d).
5. Explain the relevance and enforceability of non-compete clauses in the business environment (1a, 1b, 2a, 2c, 2d).
6. Identify the various forms of intellectual property and demonstrate an understanding of the intangible property each type protects (1a, 1b, 2a, 2c, 2d).
7. Demonstrate an understanding of the strict liability doctrine and its underlying purpose (1a, 1b, 2a, 2c, 2d).
8. Identify the different types of insurance that are relevant for a business (1a, 1b, 2a, 2c, 2d).
9. Explain the relevant federal employment laws prohibiting discrimination (1a, 1b, 2a, 2c, 2d).
10. Distinguish between independent contractors and employees (1a, 1b, 2a, 2c, 2d).
11. Identify the various forms of business ownership (1a, 1b, 2a, 2c, 2d).
12. Understand the Federal Trade Commission's prohibition of deceptive and unfair advertising (1a, 1b, 2a, 2c, 2d).

BUSG 2309 - Small Business Manage/Entrepreneurship

General

Course Key
8951

Course Rubric	Course Number	Course Title
BUSG	2309	Small Business Management and Entrepreneurship

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Starting, operating, and growing a small business. Includes essential management skills, how to prepare a business plan, accounting, financial needs, staffing, marketing strategies, and legal issues.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify management skills for a small business; outline issues related to choosing a business and obtaining a return on investment; and create a business plan. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of essential entrepreneurial concepts by:
    a. describing the role of the entrepreneur in the United States (1a, 1b);
    b. describing the entrepreneurial profile and evaluating their potential as an entrepreneur (1a, 1b, 2c);
    c. explaining the benefits and drawbacks of entrepreneurship (1a, 1b);
    d. explaining the cultural diversity of entrepreneurship (1a, 1b, 2b, 2d);
    e. describing why creativity and innovation are an integral part of entrepreneurship (1b, 2b, 2c, 2d).
2. Demonstrate an understanding of how to conduct a feasibility analysis by:
    a. explaining what a feasibility analysis is and why it's important (1b, 2c, 2d);
    b. explaining the steps involved in subjecting a business idea to a feasibility analysis (1b, 2c, 2d);
    c. describing a product/service feasibility analysis and explaining its purpose (1b, 2c, 2d);
    d. describing an industry/market feasibility analysis and explaining its purpose (1b, 2c, 2d);
    e. describing what a financial feasibility analysis is; explaining its importance, and identifying the most critical issues to consider when completing this analysis (1b, 2c, 2d).
3. Demonstrate an understanding of how to craft a business plan by:
    a. describing the benefits of preparing a business plan (1b, 2c, 2d);
    b. describing the elements of a solid business plan (1b, 2c, 2d);
    c. demonstrating proper development and formatting of a business plan (1b, 2c, 2d);
    d. identifying the importance of strategic planning as a component of the business plan (1a, 1b);
    e. explaining the steps in the strategic planning process (1a, 1b);
    f. developing the strategic plan component of the business plan (1b, 2a, 2b, 2c, 2d);
    g. describing the keys to preparing a business plan and making an effective business plan presentation (1b, 1c, 2c).
4. Demonstrate an understanding of how to start a business and how to choose the appropriate legal form of business ownership by:
    a. explaining the three options for starting a business: create a new business, purchase a franchise, and buy an existing business (1a, 1b, 2d);
    b. identifying the various legal forms of business ownership (1a, 1b);
    c. explaining the advantages and disadvantages of the various forms of business ownership (1b, 2b, 2c, 2d);
    d. identifying the most appropriate form of business ownership under specific scenarios (1b, 2a, 2b, 2c, 2d);
    e. defining a business contract (1a, 1b);
    f. explaining methods used to protect intellectual property (1a, 1b);
    g. choosing the appropriate methods for managing risk and protecting the business venture (1a, 1b, 2a, 2b, 2c).
5. Demonstrate an understanding of how marketing is best utilized in an entrepreneurial venture by:
    a. demonstrating an understanding of marketing in a small business environment (1a, 1b, 2d);
    b. identifying key target market for the business venture (1a, 1b, 2c, 2d);
    c. explaining the process of conducting marketing research (1a, 1b, 2d, 2e);
    d. identifying market segmentation methods (1a, 1b, 2d);
    e. analyzing market segments in order to determine a firm's target market (1b, 2a, 2b, 2c);
    f. developing a marketing mix for the business venture (1b, 2a, 2b, 2c).
6. Demonstrate an understanding of how to build a powerful marketing plan by:
    a. describing basic marketing principles and strategies used by entrepreneurs (1a, 1b, 2c);
    b. explaining the components of a marketing plan and its interrelationship with the business plan (1b, 2c, 2d);
    c. explaining why and how a small business can create a competitive advantage in the marketplace (1b, 2c, 2d, 2e);
    d. developing a marketing plan (1b, 2a, 2b, 2c, 2d).
7. Demonstrate an understanding of how ecommerce presents new business opportunities for entrepreneurs by:
    a. describing the factors an entrepreneur should consider before launching into ecommerce (1a, 1b, 2c);
    b. explaining the basic strategies entrepreneurs should follow to achieve success in their ecommerce efforts (1b, 2a, 2b, 2c, 2d, 2e);
    c. describing the techniques of designing an effective website (1b, 2a, 2b, 2c, 2d, 2e);
    d. explaining how companies track the results from their websites (1b, 2a, 2b, 2c, 2d, 2e);
    e. describing how e-businesses ensure the privacy and security of the information they collect and store from the web (1b, 2a, 2b, 2c, 2d, 2e).
8. Demonstrate an understanding of how to create a successful financial plan by:
    a. discussing basic accounting and financial concepts used to manage and control a small firm (1a, 1b, 2c);
    b. explaining the components of a financial plan and its interrelationship with the business plan (1b, 2c, 2d);
    c. calculating return on investment (ROI) and explaining how it is used to evaluate potential business opportunities and to manage a firm (1b, 2a, 2b, 2c, 2d);
    d. describing the differences between equity capital and debt capital (1a, 1b, 2d);
    e. identifying the various sources of equity capital available to entrepreneurs (1a, 1b, 2c);
    f. describing the various sources of debt capital (1a, 1b, 2c);
    g. explaining alternative methods of financing a business (1a, 1b, 2c).
9. Demonstrate an understanding of how to create an effective management plan by:
    a. discussing basic management principles employed by a small firm (1a, 1b, 2c);
    b. explaining the components of a management plan and its interrelationship with the business plan (1b, 2c, 2d);
    c. developing a management plan (1b, 2a, 2b, 2c, 2d).
10. Demonstrate an understanding of the global aspects of entrepreneurship by describing the principal strategies small businesses have for going global (1a, 1b, 2c, 2d).

BUSI 1301 - Business Principles

General

Course Key
16290

Course Rubric	Course Number	Course Title
BUSI	1301	Business Principles

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course provides a survey of economic systems, forms of business ownership, and considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. Emphasized is the dynamic role of business in everyday life.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

BUSI 1307 - Personal Finance

General

Course Key
16291

Course Rubric	Course Number	Course Title
BUSI	1307	Personal Finance

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing,investing, insurance, standards of living, renting or home ownership, and wills and trust plans. NOTE: This course is not part of the business field of study and may not transfer toward a degree in business.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

BUSI 2301 - Business Law

General

Course Key
16292

Course Rubric
BUSI

Course Number
2301

Course Title
Business Law

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context. Required Prerequisite: High school coursework in U.S. history and government, or equivalent.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

BUSI 2305 - Business Statistics

General

Course Key
16293

Course Rubric
BUSI

Course Number
2305

Course Title
Business Statistics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-1). Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. (BUSI 2305 is included in the Business Field of Study.) Required Prerequisite: MATH-1324 or MATH-1314 and BCIS-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # Take MATH-1314(11733) or MATH-1324(11734); # Take BCIS-1305(10570) or BCIS-1405;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

CDEC 1321 - The Infant and Toddler

General

Course Key
187

Course Rubric
CDEC

Course Number
1321

Course Title
The Infant and Toddler

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality routines, learning environments, materials and activities, and teaching/guidance techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Summarize prenatal development and the birth process; discuss theories of development as they apply to infants and toddlers; outline growth and development of children from birth to age 3; analyze components of teacher/child interactions and positive guidance techniques; design learning environments; and select materials and activities for infants and toddlers. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of prenatal development by:
    a. outlining stages and major milestones of prenatal development (1a, 1b, 2c);
    b. describing possible environmental factors (teratogens) and their effects on the developing embryo or fetus (1a, 1b, 2c);
    c. describing components of good prenatal care (1b, 2c).
2. Demonstrate an understanding of the birth process by:
    a. describing stages of labor (1a, 1b, 2c);
    b. comparing methods of delivery (1a, 1b, 2c);
    c. describing possible complications of delivery (1b, 2c);
    d. discussing effects of medication during the birth process (1b, 2c).
3. Demonstrate an understanding of the theories of development as they apply to infants and toddlers by:
    a. comparing the impact of nature and nurture on the developing child (1b, 2c);
    b. practicing authentic observations of infants and toddlers in relation to developmental milestones (1b, 2b, 2c).
4. Outline growth and development of children from birth to age 3 by:
    a. describing principles of development (1b, 2b);
    b. explaining the importance of brain research as it relates to growth and development of infants and toddlers (1b, 2b, 2c);
    c. describing physical, fine, gross motor, and perceptual development (1a, 1b, 2b, 2c);
    d. describing cognitive development (1a, 1b, 2b, 2c);
    e. describing social development (1a, 1b, 2b, 2c);
    f. describing emotional development, including self-concept and self-esteem (1a, 1b, 2b, 2c);
    g. describing receptive and expressive language development (1a, 1b, 2b, 2c);
    h. describing literacy development (1a, 1b, 2b, 2c);
    i. defining at risk as it applies to infants and toddlers (1a);
    j. identifying community resources available for early intervention (2a, 2b).
5. Demonstrate an understanding of components of quality infant/toddler caregiving by:
    a. discussing characteristics of quality programs for infants and toddlers (1a, 1b, 2b, 2c);
    b. discussing social and cultural influences which impact infant/toddler care (1a, 1b, 2b, 2c);
    c. explaining the importance of establishing and maintaining strong, positive communication and collaborative relationships with families (1a, 1b, 2b, 2c);
    d. explaining principles of quality caregiving (1b, 2b);
    e. explaining appropriate teacher roles and responsibilities for caregivers of children under three (1b, 2b);
    f. describing daily routines used in infant/toddler classrooms and their importance in meeting children's needs (1a, 1b, 2b);
    g. discussing unique health and safety needs of infants and toddlers (1a, 1b, 2b, 2c);
    h. developing appropriate schedules for infants and toddlers (1a, 1b, 2b);
    i. discussing ways to include infants and toddlers with special needs into a quality program (1a, 1b, 2b, 2c).
6. Demonstrate an understanding of elements of appropriate indoor and outdoor environments by:
    a. describing developmentally appropriate indoor environments for infants (1a, 1b, 2b, 2c);
    b. identifying characteristics of effective room arrangements for infants (1a, 1b, 2b, 2c);
    c. describing developmentally appropriate outdoor environments for infants (1a, 1b, 2b, 2c);

d. describing developmentally appropriate indoor environments for toddlers (1a, 1b, 2b, 2c);

e. identifying characteristics of effective room arrangements for toddlers (1a, 1b, 2b, 2c);

7. Provide developmentally appropriate materials and activities by:

a. providing developmentally appropriate materials for use in infant/toddler classrooms (1a, 1b, 2b);

b. implementing student planned developmentally appropriate learning activities for infants/toddlers, including those with special needs (1a, 1b, 2b, 2c).

8. Demonstrate developmentally appropriate teaching/guidance techniques by:

a. applying principles of caregiving in a classroom with children under three (1a, 1b, 2b);

b. using appropriate transitions with infants and toddlers (1a, 1b, 2b);

c. using appropriate direct and indirect guidance techniques with infants and toddlers (1a, 1b, 2b, 2c);

d. demonstrating appropriate procedures for feeding, diapering, toileting, dressing, and sleeping (1a, 1b, 1c, 2b);

e. demonstrating teamwork skills while working with colleagues in infant/toddler classrooms (1a, 1b, 1c, 2a, 2b, 2c).

CDEC 1323 - Observation and Assessment

General

Course Key
9322

Course Rubric	Course Number	Course Title
CDEC	1323	Observation and Assessment

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of observation skills, assessment techniques, and documentation of children's development.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the components of assessment; compare assessment tools; demonstrate "authentic assessment"; and develop individual plans based on "authentic assessment." Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of appropriate assessment skills by:

a. explaining the importance of assessment (1a, 1b, 2c);

b. discussing how assessment helps to describe and support young children's development (1a, 1b, 2c);

c. observing children's activities in their day to day settings (1a, 1b).

2. Develop skills in observing, recording, and interpreting children's behavior by:

a. explaining the importance of collecting, synthesizing, and interpreting information (1a, 1b, 2c);

b. explaining the importance of documenting (1a, 1b, 2c);

c. explaining how to use documentation to evaluate young children's needs (1a, 1b, 2c).

3. Define and compare assessment tools by:

a. discussing assessment tool terminology, reliability (consistency of measurement), and validity (the test measures what it is supposed to measure) (1a, 1b, 2c);

b. applying anecdotal note taking (1a, 1b, 2c);

c. identifying appropriate checklists (1a, 1b);

d. analyzing children's work samples (1a, 1b, 2c).

4. Develop individual plans based on assessment by:

a. developing an individual plan based upon assessment data (1a, 1b, 2c);

b. discussing how individual plans can assist in identifying children who may be in need of specialized services (1a, 1b, 2b, 2c);

c. discussing how to involve parents in the assessment process (1a, 1b, 2b, 2c).

CDEC 1356 - Emergent Literacy for Early Childhood

General

Course Key
192

Course Rubric	Course Number	Course Title
CDEC	1356	Emergent Literacy for Early Childhood

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An exploration of principles, methods, and materials for teaching language and literacy through a play-based integrated curriculum to children from birth through age eight.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define literacy and emergent literacy; analyze theories of language development; describe the teacher's role in promoting emergent literacy; and create literacy environments and experiences for children. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of emergent literacy by:

a. defining literacy and emergent literacy (1a, 1b, 2c);

b. describing elements pertaining to emergent literacy (1a, 1b, 2b);

c. explaining the process related to emergent literacy (1a, 1b, 2c);

d. contrasting theories of early literacy development (1a, 1b, 2c);

e. examining the interrelatedness of speaking, listening, reading, and writing (1a, 1b).

2. Demonstrate an understanding of theories associated with language development by:

a. examining theories of language development (1a, 1b, 2c);

b. outlining developmental milestones of language development/communication of children (1a, 1b, 2c);

c. describing the process of second language learning (1a, 1b, 2c).

3. Demonstrate an understanding of the teacher's role in promoting emergent literacy by:

a. outlining the teacher's roles in promoting emergent literacy (1a, 1b, 2b, 2c);

b. explaining how teachers can integrate the children's cultures into meaningful literacy experiences (1a, 1b, 2b, 2c);

c. analyzing literacy materials for bias content (1a, 1b, 2c);

d. giving examples of strategies for adapting literacy materials for children with special needs (1a, 1b, 2c);

e. describing how assessment information can be used to plan developmentally appropriate learning activities (1a, 1b, 2c);

f. explaining how teachers can integrate technology to support literacy development in a curriculum (1a, 1b, 2c, 2e).

4. Demonstrate an understanding of literacy environments for children by:

a. describing how to incorporate literacy in various centers (1a, 1b, 2c);

b. creating environments that are print rich, offer children real life experiences, and provide meaningful opportunities to promote positive attitudes toward literacy (1a, 1b, 2c);

c. analyzing cultural influences on the literacy environment (1a, 1b, 2c);

d. giving examples of appropriate literacy materials to use in early childhood programs.

5. Demonstrate the ability to select appropriate literature for children by:

a. describing a variety of techniques that promote literacy (1a, 1b, 2c);

b. analyzing criteria for choosing activities and materials for various age groups (1a, 1b, 2c);

c. examining a variety of developmentally appropriate books and other forms of print to promote literacy (1a, 1b, 2c).

CDEC 1358 - Creative Arts for Early Childhood

General

Course Key
209

Course Rubric
CDEC

Course Number
1358

Course Title
Creative Arts for Early Childhood

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An exploration of principles, methods, and materials for teaching music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking for children birth through age eight.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define the creative process; describe developmental sequences of creative arts; analyze teacher roles in enhancing creativity; describe concepts taught through the creative arts; identify components of creative environments; and assess creative arts activities. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the creative process by:
    a. describing factors that encourage and discourage creativity (1a, 1b, 2c);
    b. comparing process oriented experiences to product oriented experiences (1a, 1b, 2c, 2d);
    c. explaining the relationship of divergent thinking to creative expression (1a, 1b, 2c, 2d);
    d. describing how open ended questioning techniques encourage divergent thinking (1a, 1b);
    e. explaining the relationship of multiple intelligences to creativity (1a, 1b, 2d).
2. Demonstrate an understanding of the role of play in a child's growth and development by:
    a. explaining how play affects the development of children in all domains (1a, 1b, 2d);
    b. contrasting different types of play (1a, 1b, 2c, 2d);
    c. discussing characteristics of social play at different ages (1a, 1b, 1c, 2b).
3. Demonstrate an understanding of developmental sequences for creative arts by:
    a. outlining how children's art develops (1a, 1b, 2c, 2d);
    b. summarizing how musical development occurs (1a, 1b, 2d);
    c. explaining development of movement (gross motor, fine motor, and perceptual awareness skills) in children (1a, 1b, 2c, 2d);
    d. describing development of dramatic play in children (1a, 1b, 2c).
4. Analyze teacher roles in enhancing creativity by:
    a. explaining teacher roles in supporting visual arts in the classroom (1a, 1b, 2a, 2c);
    b. describing teacher roles in providing musical experiences (1a, 1b, 2a, 2c, 2d);
    c. summarizing teacher roles in promoting movement activities (1a, 1b, 2a, 2c, 2d);
    d. outlining teacher roles in encouraging creative dramatics/dramatic play (1a, 1b, 2a, 2c, 2d);
    e. describing how to use assessment information to plan and provide child centered learning activities (1a, 1b, 2a, 2c, 2d).
5. Demonstrate an understanding of creative arts concepts by:
    a. summarizing the role of visual arts, music, movement, and creative drama in the overall development of children (1a, 1b, 2a, 2c, 2d);
    b. outlining concepts learned by children through participating in creative art, music, movement, and dramatic play/creative drama (1a, 1b, 2a, 2c, 2d);
    c. describing strategies for infusing culture through the creative arts curriculum (1a, 1b, 2a, 2c, 2d);
    d. discussing ways that bias might influence children's behavior when participating in art, music, movement, and dramatic play (1a, 1b, 1c, 2b, 2d).
6. Evaluate components of creative environments by:
    a. describing environments that provide children with a wide range of experiences in the visual arts, music, creative drama, and movement (1a, 1b, 2a, 2c, 2d);
    b. discussing the role of aesthetics in environments for children (1a, 1b, 2a, 2c, 2d);
    c. developing materials that will enhance creativity in children (2a).
7. Demonstrate the ability to plan, implement, and assess child centered activities for music, movement, visual arts, and dramatic play by:
    a. implementing meaningful, integrated learning experiences in the arts, music, drama, and movement with other curriculum areas (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. using creative transitions with children (1c, 2a, 2b, 2c);
    c. adapting music, movement, visual arts, and dramatic play to meet the needs of children with special needs (1a, 1b, 1c, 2a, 2b, 2c, 2d).

CDEC 1359 - Children With Special Needs

General

Course Key
6222

Course Rubric
CDEC

Course Number
1359

Course Title
Children With Special Needs

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Summarize causes, incidences and characteristics of exceptionalities related to the domains of development; discuss current terminology and practices for intervention strategies; identify appropriate community resources and referrals for individual children and families; identify legislation and legal mandates and their impact on practices and environments; explain the role of advocacy for children with special needs and their families; and identify materials and resources, including current technology, to support learning in all domains for each and every child. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of causes, incidence, and characteristics of exceptionalities related to the domains of development by:
    a. defining areas of exceptionality and special education (1a, 1b, 2a, 2b, 2c);
    b. identifying exceptionalities as to genetic and/or environmental causes (1a, 1b, 2a, 2c);
    c. discussing different areas of exceptionalities (1a, 2b, 2c);
    d. describing possible signs or characteristics of areas of exceptionalities (1a, 1b, 2b, 2c).
2. Demonstrate an understanding of current terminology and practices for intervention strategies by:
    a. explaining how children develop an awareness of similarities and differences (1a, 1b, 1c, 2b, 2c);
    b. describing learning experiences that promote children's appreciation and respect for all individuals and groups (1a, 1b, 2b, 2c);
    c. explaining available screening and assessment instruments (1a, 1b, 2b, 2c);
    d. identifying individuals and their roles in developing and implementing educational and family service plans (1a, 1b, 2a, 2b, 2c);
    e. discussing integration of goals from Individualized Education Programs (IEPs), Individualized Transition Plans (ITPs), and Individualized Family Service Plans (IFSPs) into daily activities and routines (1a, 1b, 2a, 2b, 2c).
3. Identify appropriate community resources and referrals for individual children and families by:
    a. listing common needs and challenges facing families caring for children with special needs (1a, 1b, 2a, 2b, 2c);
    b. locating information on resources available in the community (1a, 1b, 2a, 2b, 2c);
    c. outlining the cultural implications and their impact on services to children with special needs (1a, 1b, 1c, 2b, 2c).
4. Evaluate legislation and legal mandates and their impact on practices and environments by:
    a. critiquing the history and impact of legislation affecting children with special needs (1a, 1b, 2a, 2b, 2c);
    b. interpreting the impact of landmark court cases on services for children with special needs (1a, 1b, 2a, 2b, 2c).
5. Comprehend the role of advocacy for children with special needs and their families by:
    a. listing agencies which advocate for children with special needs and their families (1a, 1b, 2b, 2c);
    b. explaining the importance of advocating on behalf of children with special needs and their families (1a, 1b, 2a, 2b, 2c);
    c. explaining how the codes of ethical conduct apply to professional practice (1a, 1b, 1c, 2b, 2c).
6. Use various types of materials and resources, including current technology, to support learning in all domains for all children by:
    a. identifying environments, equipment, materials, and supplies to meet individual needs of all children (1a, 1b, 2a, 2b, 2c);
    b. developing rules to build collaborative relationships with other professionals that work as a professional team (1a, 1b, 1c, 2a, 2b, 2c).

CDEC 1413 - Curriculum Resources Early Child Program

General

Course Key
15576

Course Rubric	Course Number	Course Title
CDEC	1413	Curriculum Resources for Early Childhood Programs

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) A study of the fundamentals of developmentally appropriate curriculum design and implementation in early care and education programs for children birth through age eight. Required Prerequisite: CDEC-1419.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CDEC-1419;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CDEC 1419

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define developmentally appropriate practices; describe the process of child-centered curriculum development; develop guidelines for creating learning environments; describe teacher roles in early childhood classrooms; prepare a developmentally appropriate schedule including routines and transitions; and select, plan, implement, and evaluate developmentally appropriate learning experiences for children. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of developmentally appropriate practices by:
    a. describing developmentally appropriate practices as they apply to infants/toddlers and preschool and school age children including children with special needs (1a 1b, 2d);
    b. explaining the value of play and its relationship to developmentally appropriate practices (1a, 1b);
    c. characterizing how cultural and linguistic diversity are part of developmentally appropriate practices (1a, 1b, 2a, 2c);
    d. evaluating classrooms to determine their placement on a continuum from developmentally appropriate to inappropriate in relation to room arrangement, activities, materials, and equipment (2c, 2d, 2e).
2. Demonstrate an understanding of the process of child centered curriculum development by:
    a. describing curriculum approaches/models (1a, 1b);
    b. discussing the application of anti-bias curriculum (1a, 1b, 1c, 2b, 2d);
    c. analyzing different approaches to curriculum planning (2c, 2d);
    d. comparing a variety of assessment strategies and their role in the early childhood curriculum (1b, 2a, 2c, 2d);
    e. developing lesson plans for a specific group of children (2a, 2c, 2d);
    f. examining the planning and implementation of curriculum and instruction practices based on knowledge of individual children, the community, and curriculum goals and content (1b, 2a, 2c, 2d);
    g. developing an anti-biased, developmentally appropriate curriculum (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of the guidelines for creating developmentally appropriate indoor and outdoor learning environments by:
    a. describing the relationship between children's ages and developmentally appropriate indoor and outdoor learning environments (1a, 1b, 2a);
    b. defining learning centers and/or activity zones both indoors and outdoors and their relationship to learning through play (1a, 1b, 2a, 2c, 2d);
    c. analyzing basic arrangement of learning centers in developmentally appropriate indoor learning environments (2d);
    d. organizing developmentally appropriate outdoor learning environments (2c);
    e. proposing ways to enhance creativity and aesthetics in the environment (2a, 2b).
4. Demonstrate an understanding and application of teacher roles in early childhood classrooms by:
    a. describing various roles of a teacher (1a, 1b);
    b. practicing teacher roles in early childhood classrooms and settings (2a, 2b, 2c, 2d, 2e);
    c. demonstrating the ability to select the appropriate teacher role (1c, 2a, 2b);
    d. constructing indoor and outdoor environments for all children including those with special needs (2a, 2c).
5. Demonstrate an understanding of the preparation of a developmentally appropriate schedule including routines and transitions by:
    a. describing developmentally appropriate routines for use in classrooms (1a, 1b, 2a);
    b. explaining the use of transitions in classrooms (1a, 1b, 2a);
    c. comparing appropriate and inappropriate schedules for infants/toddlers and preschool and school age children (2c, 2d);
    d. developing an appropriate schedule for a specific group of children (1b, 2a).
6. Demonstrate an understanding of the selection, planning, and evaluation of developmentally appropriate learning experiences for children by:
    a. examining developmentally appropriate learning experiences for children (1b, 2a, 2c);
    b. creating developmentally appropriate learning experiences for use with a specific group of children (1b, 2c, 2d, 2e);
    c. assessing developmentally appropriate learning experiences with children (1b, 2a, 2b, 2c, 2d, 2e).

CDEC 1419 - Child Guidance

General

Course Key
12118

Course Rubric	Course Number	Course Title
CDEC	1419	Child Guidance

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement, and cultural influences. Practical application through direct participation with children in a laboratory setting. Required Pre-requisite: TECA-1311 or TECA-1354

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take TECA-1311 or TECA-1354;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): TECA 1311 or TECA 1354

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe theories related to child guidance; explain how guidance promotes autonomy, self-discipline, and pro-social skills; identify familial and cultural influences on child guidance; and apply guidance techniques. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of theories related to child guidance by:
    a. outlining a variety of guidance techniques to use with different age children based on developmental needs and abilities (1a, 1b, 2a, 2b, 2c);
    b. listing characteristics of positive interactions and supportive relationships with children at different stages of development (1a, 1b, 2a, 2b, 2c);
    c. contrasting positive and negative forms of guidance (1a, 1b, 2b, 2c);
    d. summarizing children's social development (1a, 1b, 2b, 2c).
2. Demonstrate an understanding of appropriate guidance techniques that promote autonomy, self-discipline, and lifelong social skills in children by:
    a. describing development of self-concept and self-esteem (1b, 2b);
    b. discussing the process of emerging self-discipline (1a, 1b, 2a, 2b, 2c);
    c. listing positive social behaviors which should be encouraged in classroom settings (1b, 2b);
    d. explaining how positive guidance promotes growth and development (1a, 1b);
    e. describing development of moral competence in children (1a, 1b, 2b);
    f. explaining the role of indirect guidance techniques in classroom management (1a, 1b, 2b).
3. Demonstrate an understanding of the importance of families and culture in guiding children by:
    a. discussing anti-bias curriculum goals (1a, 1b, 2a, 2b, 2c);
    b. describing how cultural differences affect guidance (1b, 2c);
    c. explaining the role of culture in children's interactions and responses to conflict (1a, 1b, 2a, 2b, 2c);
    d. describing the importance of working with parents to solve guidance issues (1a, 1b, 2b, 2c);
    e. discussing family issues which may influence children's behaviors and ways to assist children in coping with these stressful or frightening situations (1a, 1b, 2a, 2b).
4. Promote development of positive self-concept and pro-social behaviors in children by:
    a. discussing how a teacher's guidance techniques affect children's self-esteem (1a, 1b, 2b, 2c);
    b. demonstrating techniques teachers can use to facilitate positive social interactions among children (1a, 1b, 2b, 2c).
5. Apply appropriate guidance methods to specific situations relating to children's behaviors by:
    a. recording children's behavior using anecdotal records from observation (1a, 2d);
    b. giving examples of individualized behavior plans that classroom teachers may be given to implement with children with special needs (1b, 2c);
    c. demonstrating appropriate ways of communicating with children (e.g. active listening, I messages, positive statements, etc.) (1a, 1b, 2a, 2b, 2c);
    d. using developmentally appropriate group management strategies to provide an atmosphere that enhances learning (1b, 2b, 2c);
    e. providing environments and learning experiences that promote development of children's trust, autonomy (e.g. decision making, self-assessment and self-help skills, etc.), initiative, industry, and identity (1b, 2b, 2c);
    f. demonstrating skills in classroom management and guidance techniques as they relate to common problem behaviors (e.g. biting, hitting, tantrums, inappropriate language, high activity level, etc.) (1a 1b, 2b, 2c);
    g. recognizing true problem behaviors and identifying professional resources for specific developmental or family needs (1a, 1b, 2a, 2b, 2c).
6. Demonstrate skills in helping children resolve conflicts by:
    a. supporting a classroom culture that fosters trust, caring, cooperation, responsibility, and leadership (1b, 2b, 2c);
    b. implementing principles of conflict resolution (1a, 1b, 2a, 2b, 2c);
    c. demonstrating teamwork skills when guiding children (1a, 1b, 2a, 2b, 2c).

CDEC 2307 - Math and Science for Early Childhood

General

Course Key
7066

Course Rubric	Course Number	Course Title
CDEC	2307	Math and Science for Early Childhood

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Align the sequence of cognitive development to the acquisition of math and science concepts; explain the scientific process and its application to early care and education environments; develop strategies which promote critical thinking and problem-solving skills in children; plan discovery experiences using observation and assessment; and evaluate developmentally appropriate materials, equipment, and environments to support the attainment of math and science concepts and skills. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the relation of the sequence of cognitive development to the acquisition of math and science concepts by:
    a. summarizing the sequential development of mathematical concepts (1a, 1b);
    b. outlining appropriate science concepts for children (1a, 1b);
    c. describing how the development of mathematical concepts promotes children's thinking skills (1a, 1b);
    d. explaining how to promote children's cognitive development and understanding of their world through active, hands on exploration of science concepts and processes (1a, 1b).
2. Demonstrate an understanding of the scientific process and its application to the early childhood indoor and outdoor learning environments by:
    a. explaining how to encourage all children to view themselves as competent scientific explorers (1a, 1b);
    b. describing ways to promote all children's ability to think scientifically (1a, 1b);
    c. summarizing ways to nurture all children's natural curiosity by encouraging them to explore and make discoveries about their world (1a, 1b).
3. Develop strategies which promote thinking and problem solving skills in children by:
    a. explaining how instructional methods involving the use of various types of thinking can enhance children's mathematical and scientific understanding (1a, 1b);
    b. explaining techniques for integrating math and science throughout the curriculum (1a, 1b);
    c. planning developmentally appropriate methods that include play, small group projects, open ended questioning, group discussion, problem solving, cooperative learning, and inquiry experiences to help children develop intellectual curiosity, solve problems, make decisions, and become critical thinkers (1a, 1b).
4. Utilize observation and assessment as a basis for planning discovery experiences for the individual child by:
    a. reviewing a variety of assessment strategies (1a, 1b);
    b. explaining how assessment information is interpreted and used to provide developmentally appropriate learning activities (1a, 1b);
    c. using a variety of assessment strategies to monitor children's progress in achieving outcomes and planning learning activities (1a, 1b).
5. Demonstrate the ability to create, evaluate, and/or select developmentally appropriate materials, equipment, and environments to support the attainment of math and science concepts by:
    a. evaluating children's books, software, manipulatives, music, blocks, and other materials which enhance math and science concepts for developmental appropriateness (1a, 1b, 2c);
    b. describing how to create indoor and outdoor environments that encourage emergent numeracy and scientific literacy by offering children varied, meaningful, and concrete learning experiences (1a, 1b);
    c. discussing how technology can be philosophically and physically integrated to support development of math and science concepts in the curriculum (1a, 1b);
    d. demonstrating the ability to make and use developmentally appropriate, culturally diverse, and nonsexist activities and materials to support development of specific math and science concepts (1a, 1b).

CDEC 2324 - Child Development Associate Training III

General

Course Key
14366

Course Rubric	Course Number	Course Title
CDEC	2324	Child Development Associate Training III

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Continuation of the requirements for the Child Development Associate credential (CDA). The three functional areas of study include family, program management and professionalism.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe methods to establish positive and productive relationships with families; explain methods to ensure a well-run, purposeful program responsive to participant needs; identify how to maintain a commitment to professionalism; and utilize skills in writing, speaking, problem solving, time management, and record keeping. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify methods to advance physical and intellectual competence by:
    a. offering a variety of activities which enable children to develop their large muscles (1a, 1b);
    b. offering a variety of activities which enable children to develop their small muscles (1a, 1b);
    c. adapting program activities to meet individual and special needs of children with disabilities (1a, 1b, 2b, 2c);
    d. offering children opportunities to develop their senses (1a, 1b);
    e. planning for individual learning styles (1a, 1b, 2c);
    f. providing throughout the day a variety of age appropriate materials and activities that encourage curiosity, exploration, and problem solving (1a, 1b, 2b, 2c);
    g. providing support for play, exploration, and learning (1a, 1b, 2b, 2c);
    h. communicating with each child frequently (1a, 1b, 2c);
    i. encouraging children to talk (1a, 1b, 2c);
    j. communicating with children in developmentally appropriate ways (1a, 1b, 2b, 2c);
    k. responding positively to children's attempts to communicate (1a, 1b, 2b, 2c);
    l. providing a developmentally appropriate, print rich environment in which children learn about books, literature, and writing (1a, 1b, 2b, 2c);
    m. demonstrating appreciation of individual expression and creativity (1a, 1b, 2c);
    n. providing many appropriate musical experiences (1a, 1b);
    o. providing age appropriate, creative, artistic experiences (1a, 1b);
    p. providing dramatic play experiences with a variety of age appropriate props (1a, 1b, 2c);
    q. providing a variety of age appropriate block play opportunities (1a, 1b, 2c).
2. Demonstrate skills in writing, speaking, problem solving, time management, and record keeping by:
    a. communicating thoughts, ideas, information, and messages in writing (1b, 1c, 2a, 2b, 2c);
    b. communicating orally through messages and through participation in discussions and group presentations (1b, 1c, 2a, 2b, 2c);
    c. implementing a plan of action to resolve problems (1b, 1c, 2a, 2b, 2c);
    d. using technical resources to organize and maintain information (1b, 1c, 2a, 2b, 2c).

CDEC 2326 - Admin of Programs for Children I

General

Course Key
252

Course Rubric	Course Number	Course Title
CDEC	2326	Administration of Programs for Children I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Application of management procedures for early care and education programs. Includes planning, operating, supervising, and evaluating programs. Topics cover philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop an initial operational plan; identify the functions of an administrator; evaluate an early care and education program. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the planning functions of an administrator by:
    a. explaining different types of early childhood programs (1a, 1b, 2a, 2b, 2c);
    b. describing the functions and roles of the director in various programs (1a, 1b, 2a, 2b, 2c);
    c. explaining the philosophy of administration of a program (1a, 1b, 2b, 2c);
    d. identifying components of a philosophy (1a, 1b, 2b, 2c);
    e. discussing philosophies from various types of programs (1a, 1b, 2b, 2c);
    f. discussing how the philosophy of a program affects the curriculum (1a, 1b, 2b, 2c);
    g. explaining the important role of parents in planning for children (1a, 1b, 2b, 2c);
    h. describing a program philosophy including goals and objectives (1a, 1b, 2b, 2c);
    i. explaining program policies (parent policies, personnel policies, etc.) (1a, 1b, 2b, 2c);
    j. discussing the importance of a parent policy handbook for an early care and education program (1a, 1b, 2b, 2c).
2. Demonstrate the ability to evaluate the operational functions of an administrator by:
    a. discussing the licensing process (1a, 1b, 2b, 2c);
    b. describing licensing regulations (TDFPRS Minimum Standards) (1a, 1b, 2b, 2c);
    c. simulating or participating in a licensing process (1a, 1b, 1c, 2b, 2c);
    d. explaining local, state, and national laws and regulations which impact a program (1a, 1b, 2b, 2c);
    e. identifying resources available to assist programs (1a, 1b, 2a, 2b, 2c);
    f. discussing the impact of developmentally appropriate practices on the operations of a program (1a, 1b, 2b, 2c);
    g. defining accreditation (1a, 1b, 2b, 2c);
    h. examining a fiscal management system (1a, 1b, 2a, 2b, 2c);
    i. discussing the major categories of income and expenses budgeted in an early care and education program (1a, 1b, 2a, 2b, 2c);
    j. explaining a budget for an early care and education program (1a, 1b, 2a, 2b, 2c).
3. Demonstrate an understanding of the supervisory functions of an administrator by:
    a. analyzing staffing needs (1a, 1b, 2a, 2b, 2c);
    b. discussing employment process (job descriptions, recruiting, screening, interviewing, selecting, terminating, etc.) (1a, 1b, 2a, 2b, 2c);
    c. developing an orientation plan (1a, 1b, 2a, 2b, 2c);
    d. evaluating a staff meeting (1a, 1b, 2a, 2b, 2c).
4. Demonstrate the ability to summarize the evaluation functions in an early care and education program by:
    a. summarizing methods to evaluate the program (1a, 1b, 2a, 2b, 2c);
    b. discussing purposes of and methods for staff evaluation and staff development plans (1a, 1b, 2a, 2b, 2c);
    c. discussing techniques for staff evaluation (1a, 1b, 1c, 2a, 2b, 2c);
    d. explaining types of evaluations which can be completed for children (1a, 1b, 2a, 2b, 2c);
    e. analyzing evaluation instruments (1a, 1b, 2a, 2b, 2c);
    f. conducting a program evaluation (1a, 1b, 2a, 2b, 2c).
5. Demonstrate the ability to explore methods of effective communication by:
    a. discussing importance of communicating with staff and families (1a, 1b, 2a, 2b, 2c);
    b. exploring methods of communicating with staff and families (1a, 1b, 2a, 2b, 2c);
    c. implementing a type of parent and/or staff communication (1a, 1b, 2b, 2c);
    d. demonstrating teamwork skills when working with colleagues and families (1a, 1b, 2a, 2b, 2c).
6. Demonstrate skills in writing, speaking, problem solving, time management, and record keeping by:
    a. communicating thoughts, ideas, information, and messages in writing (1b, 1c, 2a, 2b, 2c);
    b. communicating orally through messages and through participation in discussions and group presentations (1b, 1c, 2a, 2b, 2c);
    c. implementing a plan of action to resolve problems (1b, 1c, 2a, 2b, 2c);
    d. using technical resources to organize and maintain information (1b, 1c, 2a, 2b, 2c).

CDEC 2328 - Admin of Programs for Children II

General

Course Key
258

Course Rubric	Course Number	Course Title
CDEC	2328	Administration of Programs for Children II

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism, fiscal analysis, technical applications in programs, and planning parent education/partnerships.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss codes of ethical conduct; explain the administrator's role in advocacy; describe interpersonal management skills; explain legal issues; and evaluate parent involvement strategies. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the codes of conduct by:
    a. identifying the components of a code of conduct (1a, 1b, 2b, 2c);
    b. identifying the administrator's role in implementing a code of conduct (1a, 1b, 2a, 2b, 2c);
    c. defining professionalism (1a, 1b, 2b, 2c).
2. Demonstrate an understanding of communication skills needed to effectively administer an early care and education program by:
    a. listing components of effective communication (1a, 1b, 2b, 2c);
    b. explaining conflict resolution (1a, 1b, 2b, 2c);
    c. explaining the process of team building (1a, 1b, 2a, 2b, 2c);
    d. discussing a type of staff communication (1a, 1b, 2a, 2b, 2c);
    e. demonstrating teamwork skills (1a, 1b, 2b, 2c).
3. Demonstrate an understanding of the importance of parent education/partnerships in early care and education programs by:
    a. identifying techniques for building partnerships with parents (1a, 1b, 2b, 2c);
    b. explaining methods of parent education (1a, 1b, 2b, 2c);
    c. using a technique for providing parent education or building parent partnerships (1a, 1b, 2b, 2c).
4. Demonstrate an understanding of the administrator's role in advocacy by:
    a. defining advocacy (1a, 1b, 2b, 2c);
    b. identifying advocacy strategies (1a, 1b, 2b, 2c);
    c. explaining the accreditation process (1a, 1b, 2b, 2c);
    d. explaining accreditation criteria (1a, 1b, 2b, 2c);
    e. completing self-study tools of an accreditation process (1a, 1b, 2b, 2c);
    f. participating in an advocacy project (1a, 1b, 2b, 2c).
5. Demonstrate an understanding of personnel management skills necessary to administer programs by:
    a. explaining leadership styles (1a, 1b, 2b, 2c);
    b. identifying a style that fits the student as a director (1a, 1b, 2b, 2c);
    c. explaining change and the change process (1a, 1b, 2b, 2c);
    d. defining stress management (1a, 1b, 2b, 2c).
6. Comprehend symptoms of burnout and how to avoid them by:
    a. identifying stages of development for teachers and directors (1a, 1b, 2b, 2c);
    b. identifying staff training needs (1a, 1b, 2a, 2b, 2c);
    c. explaining how to conduct effective staff meetings (1a, 1b, 2a, 2b, 2c);
    d. conducting a well-planned staff meeting (1a, 1b, 2a, 2b, 2c);
7. Describe legal issues which impact programs by:
    a. explaining labor laws (1a, 1b, 2a, 2b, 2c);
    b. explaining issues of negligence and liability (1a, 1b, 2a, 2b, 2c);
    c. listing insurance needs of a program (1a, 1b, 2a, 2b, 2c).
8. Demonstrate an understanding of the fiscal responsibilities of an administrator by:
    a. incorporating tools for marketing a program (1a, 1b, 2a, 2b, 2c);
    b. explaining fundraising efforts to increase revenues for a program (1a, 1b, 2b, 2c);
    c. developing budgets (1a, 1b, 2a, 2b, 2c);
    d. presenting budgets (1a, 1b, 2a, 2b, 2c);
9. Identify current technology and issues in early care and education administration by:
    a. distinguishing technology needs of an early care and education program (1a, 1b, 2b, 2c, 2e);
    b. listing available administrative software (1a, 1b, 2b, 2c, 2d, 2e);
    c. identifying current issues affecting administration of programs (1a, 1b, 2b, 2c).
10. Demonstrate skills in writing, speaking, problem solving, time management, and record keeping by:
    a. communicating thoughts, ideas, information, and messages in writing (1b, 1c, 2a, 2b, 2c);
    b. communicating orally through messages and through participation in discussions and group presentations (1b, 1c, 2a, 2b, 2c);
    c. implementing a plan of action to resolve problems (1b, 1c, 2a, 2b, 2c);
    d. using technical resources to organize and maintain information (1b, 1c, 2a, 2b, 2c).

CDEC 2341 - The School Age Child

General

Course Key
15670

Course Rubric
CDEC

Course Number
2341

Course Title
The School Age Child

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). A study of programs for the school age child, including an overview of development, learning environments, materials, activities and guidance techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Outline growth and development of the school age child; analyze components of school age programs; and develop materials, activities, and guidance strategies. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of growth and development of the school age child by:
    a. identifying physical and motor development (1a, 1b, 2b, 2c);
    b. describing cognitive development (1a, 1b, 2b, 2c);
    c. describing social development (1a, 1b, 2b, 2c);
    d. discussing emotional development, including self-concept and self-esteem (1a, 1b, 2b, 2c);
    e. describing language and literacy development (1a, 1b, 2b, 2c);
    f. describing principles of growth and development related to a multiage setting (1a, 1b, 2b, 2c).
2. Analyze components of quality school age programs by:
    a. identifying characteristics of quality programs (1a, 1b, 2b);
    b. describing the role of play (1a, 1b);
    c. describing the characteristics of play behaviors, including the relationship between gender and play (1a, 1b, 2b, 2c);
    d. analyzing social and cultural influences which impact school age programs (1a, 1b, 2b);
    e. describing the importance of establishing and maintaining strong, positive communication and collaborative relationships with families and resource professionals, as needed (1a, 1b, 2b, 2c);
    f. identifying appropriate teacher roles and responsibilities for caregivers of school age children (1b, 2b);
    g. describing routines used in school age programs and their importance in meeting children's needs (1a, 1b, 2b);
    h. identifying health and safety issues affecting school age children (1a, 1b, 2b);
    i. demonstrating appropriate schedules (2a, 2b).
3. Demonstrate an understanding of elements of appropriate indoor and outdoor environments by:
    a. identifying developmentally appropriate indoor environments (1a, 1b, 2b, 2c);
    b. describing characteristics of effective room arrangements (1a, 1b, 2b, 2c);
    c. describing developmentally appropriate outdoor environments (1a, 1b, 2b, 2c);
    d. measuring strategies for adapting programs to a variety of settings (1b, 2b, 2c);
    e. listing strategies for adapting environments for children with special needs (1b, 2b, 2c).
4. Produce developmentally appropriate materials and activities by:
    a. providing, through selection and/or making, developmentally appropriate materials for use in school age programs (1a, 1b, 2b, 2c);
    b. arranging assessment to plan and implement developmentally appropriate activities (1a, 1b, 2b, 2c);
    c. preparing strategies for adapting materials and activities to multiage groups and to children with special needs (1b, 2b, 2c);
    d. planning activities to address issues related to bias and diverse cultures (1b, 2b).
5. Use developmentally appropriate teaching and guidance techniques by:
    a. developing appropriate schedules and transitions (1a, 1b, 2b, 2c);
    b. identifying appropriate direct and indirect guidance techniques (1a, 1b, 2b, 2c);
    c. using negotiation and problem solving techniques (1b, 2c);
    d. applying teamwork skills while working with colleagues in school age programs (1a, 1b, 2b, 2c);
    e. applying strategies for working with children in multiage settings (1b, 2c).

CDEC 2386 - Internship-Child Care Provider/Assist

General

Course Key
15092

Course Rubric
CDEC

Course Number
2386

Course Title
Internship - Child Care Provider/Assistant

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
9

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-9) A work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. A learning plan is developed by the College and the employer. Includes application of early childhood principles, methods, materials, and appropriate guidance techniques for teaching young children in framework which utilizes active learning. Supervised direct application in a laboratory setting. This course serves as the Capstone experience for child development majors. Required Prerequisites: CDEC-1419 and CDEC-1413

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CDEC-1419 CDEC-1413
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CDEC 1419 and CDEC 1413

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply theory, concepts, and skills promoting child development and learning by:
    a. applying direct and indirect developmentally appropriate guidance methods to specific situations relating to children's behavior (1a, 1b, 2d);
    b. using a variety of assessment strategies to monitor children's progress in achieving outcomes and planning learning activities (1a, 1b, 2c);
    c. applying an understanding of teacher roles and appropriate strategies in early childhood classrooms (2a, 2b, 2c, 2d, 2e);
    d. building relationships involving families in their children's development and learning (1a, 1b, 2a, 2c);
    e. supporting a classroom culture that fosters trust, caring, cooperation, responsibility, and leadership (1b, 2b, 2c).
2. Demonstrate legal and ethical behavior and safety practices by:
    a. exhibiting self-control (1b, 1c, 2b);
    b. exhibiting professionalism as related to the field of child development (1a, 1b, 2b, 2c);
    c. explaining appropriate nutritional needs of children (2a, 2b, 2c, 2d, 2e);
    d. respecting individual family differences and nurturing each child's cultural identity (1a, 1b, 2b, 2c);
    e. describing the purpose, rules, and practices of confidentiality (1a, 1b, 2b, 2c);
    f. understanding state statutes and procedures for reporting child abuse and neglect (1a, 1b, 2a, 2b, 2c).
3. Demonstrate an ability to work effectively as a member of a professional team and exhibit interpersonal skills by:
    a. demonstrating respect (1a, 1b, 2a, 2b, 2c);
    b. practicing leadership skills (1a, 1b, 2b, 2c);
    c. demonstrating professional and ethical behavior (1a, 1b, 2b, 2c);
    d. demonstrating positive, team building management techniques (1a, 1b, 2a, 2b, 2c).
4. Demonstrate an understanding of how to use appropriate written and verbal communication skills by:
    a. communicating thoughts, ideas, information, and messages in writing (1b, 1c, 2a, 2b, 2c);
    b. communicating oral messages and participating in discussions and group presentations (1b, 1c, 2a, 2b, 2c);
    c. implementing a plan of action to resolve problems (1b, 1c, 2a, 2b, 2c);
    d. organizing and maintaining information using technical resources (1b, 1c, 2a, 2b, 2c).

CETT 1403 - DC Circuits

General

Course Key
16533

Course Rubric	Course Number	Course Title
CETT	1403	DC Circuits

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A study of the fundamentals of direct current including Ohm's law, Kirchhoff's laws and circuit analysis techniques. Must be TSI Met in Algebraic Math pathway.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Must be TSI Met in Algebraic Math pathway

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Interpret color codes and other descriptors used in electronics; identify various sources of electricity; compute voltage, current, resistance, and power in DC circuits; measure voltage, current, and resistance in DC circuits; and troubleshooting various circuits and components; and utilize a multimeter and oscilloscope to measure the output

Upon successful completion of this course, students will:

1. Convert various units of measurement by
   a. converting from volts to kilovolts;
   b. converting from inches to millimeters;
   c. converting from the measurement of force (lbs.) to newtons;
   d. converting from horsepower to watts;
   e. converting energy units from kilowatt hours to joules;
   f. converting from amps to milliamps using the proper metric prefixes.
2. Demonstrate an understanding of the relationships between valence shells, free electrons, and conduction by
   a. describing the valence shell as it applies to an atom;
   b. explaining the purpose of free electrons;
   c. explaining the methods of conduction of electricity.
3. Demonstrate an understanding of current, both in conventional and electron flow methods by
   a. defining current using the conventional flow method;
   b. describing current using the electron flow method.
4. Demonstrate an understanding of the function of a battery and its characteristics by
   a. describing a basic battery including its internal construction ;
   b. identifying the battery's schematic symbol;
   c. applying a battery source to a circuit while observing the conventional flow method ;
   d. describing the proper disposal method of all defective batteries.
5. Demonstrate the proper method in measuring both voltage and current in a DC circuit by
   a. demonstrating the application of a digital multimeter (DMM) in measuring voltage across a component or components in an electrical circuit;
   b. demonstrating the application of a DMM in measuring current through a component or branch of components in an electrical circuit;
   c. applying the proper unit label for either voltage or current measurements.
6. Demonstrate an understanding of Ohm's Law by calculating for the unknown quantity while given two of the three variables (V = IR) by
   a. calculating for voltage when only the current and resistance values are given (V = IR) ;
   b. calculating for current when only the voltage and resistance values are given (I = V/R) ;
   c. calculating for resistance when only the current and voltage values are given (R = V/I).
7. Apply knowledge of Kirchoff's Voltage Law (KVL) and Kirchoff's Current Law (KCL) to the analysis of DC and AC circuits by
   a. applying the KVL to determine the voltage applied to a series circuit (2c);
   b. applying the KCL to determine the currents through parallel components in a parallel circuit (2c);
   c. utilizing both KVL and KCL to analyze a series, parallel combinational circuit (2c).
8. Apply knowledge of resistors to the analysis of electronic circuits by
   a. identifying the different types of resistors;
   b. inspecting different resistors visually to determine wattage values ;
   c. performing lab experiments demonstrating the applications of various resistors ;
   d. demonstrating the use of nonlinear devices such as varistors and diodes;
   e. determining the resistance value of an individual resistor using the resistor's color code;
   f. measuring the resistance values using an ohmmeter and compare to the calculated values.
9. Demonstrate troubleshooting skills while building circuits on a protoboard by
   a. using a solderless breadboard, a protoboard, to set up series, parallel, and combinational circuits;
   b. practicing good safety habits while using external power supplies and other test equipment;
   c. performing lab experiments using knowledge learned in the classroom.
10. Demonstrate troubleshooting skills for voltage dividers and current dividers by
    a. use voltage dividers in a series circuits;
    b. use current dividers in a parallel circuits.
    c. plotting voltage vs. frequency in the resonant circuit (2c);
    d. using PSpice and/or Electronic Workbench to create graphs and plotting of the resonant circuit (2e).
11. Identify transformer circuit quantities by
    a. explaining the concept of mutual inductance (1b);
    b. explaining the concept of impedance matching using a transformer (1b);
    c. reading and explaining the nameplate data of a transformer (1b);
    d. determining the turns ratio of a transformer (1b);
    e. explaining the operation of a tapped, multiple load, and autotransformer (1b).
12. Calculate voltage, current, and power relationships in transformer circuits by
    a. calculating the coefficient of coupling between two mutually coupled coils (1b);
    b. calculating the step up or step down voltage and current of a given transformer (1a);
    c. calculating the primary and secondary power of a given transformer (1a);
    d. using PSpice or Electronics Workbench to simulate the behavior of a transformer (2e).
13. Demonstrate an understanding of AC three phase circuit configuration quantities by
    a. explaining the use of phasor diagrams for calculating three phase voltage and current (1b);
    b. explaining the difference between wye connected and delta connected generators (1b);
    c. explaining the difference between wye connected and delta connected loads (1b);
    d. illustrating the connections of wye connected and delta connected configurations (1b);
    e. explaining the method of making power measurements in a three phase system (1b).
14. Demonstrate the ability to calculate the voltage, current, and power relationships in three phase circuit configurations by
    a. calculating the phasor voltages resulting from three phase circuits (1a);
    b. calculating the phasor currents resulting from three phase circuits (1a);
    c. calculating the power resulting from three phase circuits (1a);
    d. calculating the power factor of different types of three phase circuit configurations (1a);
    e. using PSpice and/or Electronics Workbench to simulate the behavior of a three phase circuit (2e);
    f. using MathCad to verify manual calculations previously performed (2e).

CETT 1405 - AC Circuits

General

Course Key
16534

Course Rubric	Course Number	Course Title
CETT	1405	AC Circuits

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Must be TSI Met in Algebraic Math pathway.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Must be TSI Met in Algebraic Math pathway

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Operate test equipment including oscilloscope; identify various sources of electricity; analyze AC circuits using applicable mathematical formulas; and troubleshoot various AC circuits using schematic diagrams.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of sinusoidal waveforms by describing the alternating current (AC) waveform properties by
   a. calculating the following values: peak, peak to peak, instantaneous value average, RMS, period, and frequency;
   b. determining the phase difference between two AC waveforms and identifying the lead waveform;
   c. measuring the amplitude, frequency, and phase of AC waveforms using an oscilloscope.
2. Demonstrate an understanding of the basic phasor quantities by using equations for reactance to calculate AC circuit properties by
   a. calculating inductive reactance and capacitive reactance;
   b. plotting inductance and capacitance as a function of frequency;
   c. using a scientific calculator to calculate AC reactance quantities.
3. Perform AC circuit calculations using the basic phasor elements by
   a. calculating AC circuit quantities for circuits with resistance, capacitance, or inductance;
   b. diagramming AC circuit quantities for circuits with resistance, capacitance, or inductance;
   c. creating an impedance triangle from the phasor elements.
4. Measure AC circuit quantities involving the basic phasor elements by
   a. measuring AC voltage and current in a purely resistive circuit using a digital multimeter (DMM) and oscilloscope (scope);
   b. measuring AC voltage and current in a circuit containing capacitance using a DMM and scope;
   c. measuring AC voltage and current in a circuit containing inductance using a DMM and scope.
5. Calculate AC circuit quantities for AC series, parallel, and combinational circuits by
   a. calculating the current value through a series, parallel, or combinational AC circuit;
   b. calculating the voltage values in a series, parallel, or combinational AC circuit;
   c. calculating the power utilized in a series, parallel, or combinational AC circuit;
   d. calculating total impedance of series connected elements in an AC circuit;
   e. calculating the total admittance of parallel connected elements in an AC circuit.
6. Perform power calculations in AC circuits by
   a. calculating and plotting AC resistive power;
   b. calculating and plotting AC inductive reactive power;
   c. calculating and plotting AC capacitive reactive power;
   d. calculating and plotting AC total or apparent power;
   e. calculating the power factor (1a);
   f. using computer simulation software and MathCAD to determine the AC power quantities.
7. Perform calculations on AC series resonant circuits by
   a. calculating the series resonant frequency;
   b. calculating the current and voltages at resonant frequency;
   c. determining the bandwidth of a series resonant circuit;
   d. calculating the upper and lower cutoff frequencies for a series resonant circuit.
8. Plot AC series resonant circuit relationships by
   a. plotting current vs. frequency in the resonant circuit;
   b. plotting voltage vs. frequency in the resonant circuit;
   c. Electronic Workbench to create graphs and plotting of the resonant circuit.
9. Identify transformer circuit quantities by
   a. explaining the concept of mutual inductance;
   b. explaining the concept of impedance matching using a transformer;
   c. reading and explaining the nameplate data of a transformer;
   d. determining the turns ratio of a transformer;
   e. explaining the operation of a tapped, multiple load, and autotransformer.
10. Calculate voltage, current, and power relationships in transformer circuits by
    a. calculating the coefficient of coupling between two mutually coupled coils;
    b. calculating the step up or step down voltage and current of a given transformer;
    c. calculating the primary and secondary power of a given transformer;
    d. Electronics Workbench to simulate the behavior of a transformer.
11. Demonstrate an understanding of AC three phase circuit configuration quantities by
    a. explaining the use of phasor diagrams for calculating three phase voltage and current;
    b. explaining the difference between wye connected and delta connected generators;
    c. explaining the difference between wye connected and delta connected loads;
    d. illustrating the connections of wye connected and delta connected configurations;
    e. explaining the method of making power measurements in a three phase system.
12. Demonstrate the ability to calculate the voltage, current, and power relationships in three phase circuit configurations by
    a. calculating the phasor voltages resulting from three phase circuits;
    b. calculating the phasor currents resulting from three phase circuits;
    c. calculating the power resulting from three phase circuits;
    d. calculating the power factor of different types of three phase circuit configurations;
    e. Electronics Workbench to simulate the behavior of a three phase circuit.

CETT 1409 - DC-AC Circuits

General

Course Key
14368

Course Rubric	Course Number	Course Title
CETT	1409	DC-AC Circuits

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchhoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Emphasis on circuit simulation using PSpice. Course includes soldering techniques, hand tools, circuit fabrication techniques, troubleshooting techniques and circuit analysis using Mathcad. For majors in Electronics and Telecommunications Technology, computer Hardware Technology, and Robotics and Automation Technology. Required Prerequisite: TSI Met in Algebraic Math pathway

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Must be TSI Met in Algebraic Math pathway
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): TSI-Met in Algebraic Math pathway

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Construct and analyze DC and AC circuits from simple to complex; perform test measurements; and utilize a multimeter and oscilloscope to differentiate between two AC signals with respect to voltage, current, and power.

1. Convert various units of measurement by

a. converting from volts to kilovolts (1a);

b. converting from inches to millimeters (1a);

c. converting from the measurement of force (lbs.) to newtons (1a);

d. converting from horsepower to watts (1a);

e. converting energy units from kilowatt hours to joules (1a);

f. converting from amps to milliamps using the proper metric prefixes (1a).

2. Conduct circuit analysis with the aid of computer software by

a. designing and testing circuits using Pspice (2c);

b. applying MathCad software to the analysis of DC-AC circuits (2c).

3. Demonstrate an understanding of the relationships between valence shells, free electrons, and conduction by

a. describing the valence shell as it applies to an atom (1b);

b. explaining the purpose of free electrons (1b);

c. explaining the methods of conduction of electricity (1b).

4. Demonstrate an understanding of conductors, insulators, and semiconductors and give examples of each by

a. listing the characteristics of conductors, insulators, and semiconductors (1a);

b. giving examples of conductors, insulators, and semiconductors (1a).

5. Demonstrate an understanding of electromotive force (EMF) by

a. listing the sources of EMF (1b);

b. describing the effects caused by EMF (1b);

c. defining the unit of measurement of EMF, which is the volt (1b).

6. Demonstrate an understanding of current, both in conventional and electron flow methods by

a. defining current using the conventional flow method (1b);

b. describing current using the electron flow method (1b).

7. Demonstrate an understanding of the function of a battery and its characteristics by

a. describing a basic battery including its internal construction (1a);

b. identifying the battery's schematic symbol (1a);

c. applying a battery source to a circuit while observing the conventional flow method (1a);

d. describing the proper disposal method of all defective batteries (2a).

8. Demonstrate the proper method in measuring both voltage and current in a DC circuit by

a. demonstrating the application of a digital multimeter (DMM) in measuring voltage across a component or components in an electrical circuit (2e);

b. demonstrating the application of a DMM in measuring current through a component or branch of components in an electrical circuit (2e);

c. applying the proper unit label for either voltage or current measurements (2c).

9. Demonstrate an understanding of Ohm's Law by calculating for the unknown quantity while given two of the three variables (V = IR) by

a. calculating for voltage when only the current and resistance values are given (V = IR) (1a);

b. calculating for current when only the voltage and resistance values are given (I = V/R) (1a);

c. calculating for resistance when only the current and voltage values are given (R = V/I) (1a).

10. Apply knowledge of Kirchoff's Voltage Law (KVL) and Kirchoff's Current Law (KCL) to the analysis of DC and AC circuits by

a. applying the KVL to determine the voltage applied to a series circuit (2c);

b. applying the KCL to determine the currents through parallel components in a parallel circuit (2c);

c. utilizing both KVL and KCL to analyze a series, parallel combinational circuit (2c).

11. Apply knowledge of resistors to the analysis of electronic circuits by

a. identifying the different types of resistors (1a);

b. inspecting different resistors visually to determine wattage values (1a);

c. performing lab experiments demonstrating the applications of various resistors (1b);

d. demonstrating the use of nonlinear devices such as varistors and diodes (1b);

e. determining the resistance value of an individual resistor using the resistor's color code (1b);

f. measuring the resistance values using an ohmmeter and compare to the calculated values (2e).

12. Demonstrate troubleshooting skills while building circuits on a protoboard by

a. using a solderless breadboard, a protoboard, to set up series, parallel, and combinational circuits (2e);

b. practicing good safety habits while using external power supplies and other test equipment (1c);

c. performing lab experiments using knowledge learned in the classroom (1b).

13. Demonstrate knowledge of sinusoidal waveforms by describing the alternating current (AC) waveform properties by

a. calculating the following values: peak, peak to peak, instantaneous value, average, RMS, period, and frequency (1a);

b. determining the phase difference between two AC waveforms and identifying the lead waveform (1b);

c. measuring the amplitude, frequency, and phase of AC waveforms using an oscilloscope (1b).

14. Demonstrate an understanding of the basic phasor quantities by using equations for reactance to calculate AC circuit properties by

a. calculating inductive reactance and capacitive reactance (1a);

b. plotting inductance and capacitance as a function of frequency (2c);

c. using a scientific calculator to calculate AC reactance quantities (2e).

15. Use computer software to calculate and plot AC circuit analysis quantities by

a. using MathCad to calculate AC quantities (2e);

b. using PSpice and/or Electronics Workbench to simulate the behavior of AC circuits and plot the results (2e);

c. determining AC circuit quantities using a high level computer programming language (2e).

16. Perform AC circuit calculations using the basic phasor elements by

a. calculating AC circuit quantities for circuits with resistance, capacitance, or inductance (2c);

b. diagramming AC circuit quantities for circuits with resistance, capacitance, or inductance (2c);

c. creating an impedance triangle from the phasor elements (2c).

17. Measure AC circuit quantities involving the basic phasor elements by

a. measuring AC voltage and current in a purely resistive circuit using a digital multimeter (DMM) and oscilloscope (scope) (2e);

b. measuring AC voltage and current in a circuit containing capacitance using a DMM and scope (2e);

c. measuring AC voltage and current in a circuit containing inductance using a DMM and scope (2e).

18. Calculate AC circuit quantities for AC series, parallel, and combinational circuits by

a. calculating the current value through a series, parallel, or combinational AC circuit (1a);

b. calculating the voltage values in a series, parallel, or combinational AC circuit (1a);

c. calculating the power utilized in a series, parallel, or combinational AC circuit (1a);

d. calculating total impedance of series connected elements in an AC circuit (1a);

e. calculating the total admittance of parallel connected elements in an AC circuit (1a).

19. Perform power calculations in AC circuits by

a. calculating and plotting AC resistive power (2c);

b. calculating and plotting AC inductive reactive power (2c);

c. calculating and plotting AC capacitive reactive power (2c);

d. calculating and plotting AC total or apparent power (2c);

e. calculating the power factor (1a);

f. using computer simulation software and MathCAD to determine the AC power quantities (2e).

20. Perform calculations on AC series resonant circuits by

a. calculating the series resonant frequency (1b);

b. calculating the current and voltages at resonant frequency (1b);

c. determining the bandwidth of a series resonant circuit (1b);

d. calculating the upper and lower cutoff frequencies for a series resonant circuit (1b);

e. using MathCad to verify manual calculations (2e).

21. Plot AC series resonant circuit relationships by

a. plotting current vs. frequency in the resonant circuit (2c);

b. plotting voltage vs. frequency in the resonant circuit (2c);

c. using PSpice and/or Electronic Workbench to create graphs and plotting of the resonant circuit (2e).

22. Identify transformer circuit quantities by

a. explaining the concept of mutual inductance (1b);

b. explaining the concept of impedance matching using a transformer (1b);

c. reading and explaining the nameplate data of a transformer (1b);

d. determining the turns ratio of a transformer (1b);

e. explaining the operation of a tapped, multiple load, and autotransformer (1b).

23. Calculate voltage, current, and power relationships in transformer circuits by

a. calculating the coefficient of coupling between two mutually coupled coils (1b);

b. calculating the step up or step down voltage and current of a given transformer (1a);

c. calculating the primary and secondary power of a given transformer (1a);

d. using PSpice or Electronics Workbench to simulate the behavior of a transformer (2e).

24. Demonstrate an understanding of AC three phase circuit configuration quantities by

a. explaining the use of phasor diagrams for calculating three phase voltage and current (1b);

b. explaining the difference between wye connected and delta connected generators (1b);

c. explaining the difference between wye connected and delta connected loads (1b);

d. illustrating the connections of wye connected and delta connected configurations (1b);

e. explaining the method of making power measurements in a three phase system (1b).

25. Demonstrate the ability to calculate the voltage, current, and power relationships in three phase circuit configurations by

a. calculating the phasor voltages resulting from three phase circuits (1a);

b. calculating the phasor currents resulting from three phase circuits (1a);

c. calculating the power resulting from three phase circuits (1a);

d. calculating the power factor of different types of three phase circuit configurations (1a);

e. using PSpice and/or Electronics Workbench to simulate the behavior of a three phase circuit (2e);

f. using MathCad to verify manual calculations previously performed (2e).

CETT 1441 - Solid State Circuits

General

Course Key
16527

Course Rubric	Course Number	Course Title
CETT	1441	Solid State Circuits

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Required Prerequisites: CETT-1409 or CETT-1403 and CETT-1405 and TSI Met in Algebraic Math pathway

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): CETT-1409 or CETT-1403 and CETT-1405 and TSI Met in Algebraic Math pathway

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Construct, analyze, test, and troubleshoot circuits containing various semiconductor devices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a working knowledge of diodes by
   a. comparing the forward and reverse resistance of a diode (1a, 1b, 2e);
   b. examining and drawing the output waveform for the half wave rectifier circuit (1a, 1b, 2e);
   c. examining and drawing the output waveform for the full wave rectifier circuit (1a, 1b, 2e);
   d. examining and drawing the output waveform for the full wave bridge rectifier circuit (1a, 1b, 2d, 2e);
   e. analyzing and measure the output of a clipper and a clamper circuit (1a, 1b, 2d, 2e);
   f. analyzing the output of a zener diode voltage regulator circuit under varying loads (1a, 1b, 2e);
   g. displaying ability to configure a seven segment diode to display the number 4 (1a, 1b, 2d, 2e).
2. Demonstrate a working knowledge of bipolar junction transistor circuits by
   a. constructing and analyzing bipolar junction transistor circuits (1a, 1b, 2e);
   b. constructing and analyzing bipolar junction transistor switching circuits (1a, 1b, 2e);
   c. constructing and analyzing a base biased transistor circuit (1a, 1b, 2e);
   d. analyzing and constructing the voltage divider biased amplifier (1a, 1b, 2e);
   e. analyzing and constructing the common collector amplifier (1a, 1b, 2e);
   f. analyzing and constructing the common base amplifier (1a, 1b, 2e).
3. Demonstrate a working knowledge of Field Effect Transistor circuits by
   a. contrasting the JFET with the Bipolar Transistor (1a, 1b, 2d, 2e);
   b. determining the IDSS current using the transconductance curves for a JFET (1a, 1b, 2d, 2e);
   c. explaining how the Q-point changes as the transconductanced curve of the JFET changes (1a, 1b, 2d, 2e);
   d. designing and constructing a JFET amplifier using voltage divider biasing (1a, 1b, 2d, 2e).
4. Demonstrate an understanding of MOSFETS by
   a. describing the theory of the D-MOSFET (1a, 1b, 2d, 2e);
   b. analyzing D-MOSFET amplifier circuits (1a, 1b, 2d, 2e);
   c. constructing a D-MOSFET amplifier circuit and measuring circuit values (1a, 1b, 2d, 2e);
   d. constructing an E-MOSFET amplifier circuit and measuring circuit values (1a, 1b, 2d, 2e).
5. Demonstrate an understanding of thyristor circuits by
   a. describing the theory of the thyristor (1a, 1b, 2d, 2e);
   b. describing how the SCR differs from the thyristor (1a, 1b, 2d, 2e);
   c. describing how the TRIAC differs from the SCR (1a, 1b, 2d, 2e);
   d. displaying ability to draw a current versus voltage graph for a DIAC (1a, 1b, 2d, 2e);
   e. describing how a Shockley diode functions in the forward biased direction (1a, 1b, 2d, 2e);
   f. describing how the UJT relaxation oscillator operates (1a, 1b, 2d, 2e);
   g. constructing and analyzing an SCR phase control circuit (1a, 1b, 2d, 2e).

CETT 1445 - Microprocessor

General

Course Key
306

Course Rubric
CETT

Course Number
1445

Course Title
Microprocessor

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). An introductory course in microprocessor software and hardware: architecture, timing sequence, operation, and programming. Discussion of appropriate software diagnostic language and tools. Recommended Prerequisite: CETT-1449

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cett-1449;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CETT 1449

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define terms applicable to microprocessor/microcontroller systems; program applications for microprocessor/microcontroller systems; write a program to control microprocessor/microcontroller systems; describe the purpose of microprocessor internal registers.

1. Demonstrate a working knowledge of number systems by

a. counting to 15 in binary (1a, 1b, 2d, 2e);

b. converting binary numbers to hexadecimal numbers (1a, 1b, 2d, 2e);

c. using assembly language to find the complement of a number (1a, 1b, 2d, 2e);

d. using assembly language to find the twos complement difference (1a, 1b, 2d, 2e).

2. Demonstrate a working knowledge of microcontrollers by

a. explaining the program counter and its purpose (1a, 1b, 2d, 2e);

b. explaining the purpose of the general purpose registers (1a, 1b, 2d, 2e);

c. explaining the special function registers in a PIC microcontroller (1a, 1b, 2d, 2e);

d. contrasting the Von Neumann architecture and the Harvard architecture (1a, 1b, 2d, 2e);

e. explaining bank switching and how it is done (1a, 1b, 2d, 2e);

f. explaining the purpose of the W register in a PIC microcontroller (1a, 1b, 2d, 2e);

g. explaining the purpose of the STATUS register in a PIC microcontroller (1a, 1b, 2d, 2e);

h. demonstrating a working knowledge of the instruction set for the PIC16f series of the PIC (1a, 1b, 2d, 2e).

3. Demonstrate an understanding of the PIC instructions by

a. writing code to set up a port as an input or output port for digital data (1a, 1b, 2d, 2e);

b. writing data to a port (1a, 1b, 2d, 2e);

c. switching between data memory banks (1a, 1b, 2d, 2e);

d. declaring variables and constants (1a, 1b, 2d, 2e);

e. reading digital data from a port (1a, 1b, 2d, 2e).

4. Demonstrate an understanding of writing program by

a. determining the program cycle time for each instruction (1a, 1b, 2d, 2e);

b. calculating the time used by a program loop (1a, 1b, 2d, 2e);

c. writing code to loop back to the start of a loop (1a, 1b, 2d, 2e);

d. writing time delay loops (1a, 1b, 2d, 2e);

e. explaining the advantages of using loops over linear programming (1a, 1b, 2d, 2e).

5. Demonstrate an understanding of subroutines by

a. describing the anatomy of a subroutine (1a, 1b, 2d, 2e);

b. explaining the advantages of a subroutine (1a, 1b, 2d, 2e);

c. explaining why the return is necessary for the subroutine to operate properly (1a, 1b, 2d, 2e);

d. demonstrating how to access a subroutine (1a, 1b, 2d, 2e);

e. discussing the use of the stack as it pertains to the subroutine (1a, 1b, 2d, 2e).

6. Demonstrate an understanding of assembly language programming by

a. using lookup tables to access data (1a, 1b, 2d, 2e);

b. using interrupts to access control of a program from outside the processor (1a, 1b, 2d, 2e);

c. demonstrating writing and using macros in programs (1a, 1b, 2d, 2e);

d. interfacing to peripheral devices such as the seven segment display or an LCD display (1a, 1b, 2d, 2e);

e. writing de-bounce programs to input data from a switch (1a, 1b, 2d, 2e);

f. using internal timers (1a, 1b, 2d, 2e).

7. Demonstrate an understanding of embedded C programming by

a. describing the anatomy of a while loop (1a, 1b, 2d, 2e);

b. describing the anatomy of a for loop (1a, 1b, 2d, 2e);

c. explaining the advantages of the if-else statement (1a, 1b, 2d, 2e);

d. identifying the advantages and disadvantages of C programming over assembly language (1a, 1b, 2d, 2e);

e. describing the anatomy of a function (1a, 1b, 2d, 2e);

f. comparing the function and the subroutine (1a, 1b, 2d, 2e).

CETT 1449 - Digital Systems

General

Course Key
14370

Course Rubric
CETT

Course Number
1449

Course Title
Digital Systems

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A course in electronics covering digital systems. Emphasis on application and troubleshooting digital systems using counters, registers, code converters, multiplexers, analog-to-digital to-analog circuits, and large-scale integrated circuits. Required Prerequisite: TSI Met in Algebraic Math pathway

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Math Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): TSI-Met in Algebraic Math pathway

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze and troubleshoot digital systems.

1. Demonstrate an understanding of the binary and hexadecimal number systems with digital circuits by

a. converting from binary to hexadecimal (1a);

b. converting from binary to decimal (1a);

c. converting from hexadecimal to binary (1a);

d. converting from decimal to binary (1a).

2. Perform computer arithmetic by

a. adding binary numbers (1a);

b. subtracting binary numbers using twos complement notation (1a).

3. Demonstrate an understanding of the use of Boolean algebra in digital electronics by

a. explaining the use of letters and words to represent unknown voltages on schematics (1a);

b. identifying the Boolean operators and their truth tables (1a).

4. Design digital circuits using gates by

a. identifying the different gate symbols and their truth tables (1a);

b. converting a Boolean equation to a schematic and a schematic to a Boolean equation (1a, 1b);

c. designing digital circuits with gates using discrete logic (1a, 1b);

d. designing digital circuits with gates using a PLD (1a, 1b).

5. Fabricate digital circuits using gates by

a. fabricating digital circuits with gates using discrete logic (1b, 2e);

b. fabricating circuits with gates using a PLD (1b, 2e).

6. Troubleshoot digital circuits using gates by

a. troubleshooting digital circuits with gates using discrete logic (1a, 1b);

b. troubleshooting digital circuits with gates using a PLD (1a, 1b).

7. Design digital circuits using flip-flops by

a. identifying the different flip-flop symbols and their truth tables (1a);

b. designing digital circuits with flip-flops using discrete logic (1a, 1b);

c. designing digital circuits with gates using a PLD (1a, 1b).

8. Fabricate digital circuits using flip-flops by

a. fabricating digital circuits with flip-flops using discrete logic (1b, 2e);

b. fabricating digital circuits with gates using a PLD (1b, 2e).

9. Troubleshoot digital circuits using flip-flops by

a. troubleshooting digital circuits with flip-flops using discrete logic (1a, 1b);

b. troubleshooting circuits with gates using a PLD (1a, 1b).

10. Demonstrate an understanding of classical digital circuits by

a. describing classical digital circuits that use only gates (1a, 1b);

b. describing classical digital circuits that use only flip-flops (1a, 1b);

c. describing classical digital circuits that use gates and flip-flops (1a, 1b).

CETT 2435 - Advanced Microprocessors

General

Course Key
315

Course Rubric
CETT

Course Number
2435

Course Title
Advanced Microprocessors

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) An advanced course utilizing the microprocessor in control systems and interfacing. Emphasis on microprocessor hardware and implementation of peripheral interfacing. Recommended Prerequisite: CETT-1445

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cett-1445;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CETT 1445

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design a microprocessor controlled interface; assemble hardware; write program to perform a practical application; explain the operation of a programmable interfacing chip; and configure a programmable interfacing chip.

1. Demonstrate an understanding of analog to digital conversion (ADC) by

a. inputting an analog voltage into the microprocessor's analog to digital converter and retrieving a digital representation of that input voltage (1a, 1b, 2a, 2c, 2d, 2e);

b. developing a subroutine to convert the binary representation of the input voltage to a useable BCD value (1a, 1b, 2a, 2c, 2d, 2e);

c. creating a subroutine to clear the CRT terminal screen for information display (1a, 1b, 2a, 2c, 2d, 2e);

d. creating a subroutine to display the input voltage on the screen (1a, 1b, 2a, 2c, 2d, 2e);

e. constructing the necessary interface circuitry to input a 0 to 50V input without overdriving the ADC input to the microprocessor (1a, 1b, 2a, 2c, 2d, 2e).

2. Demonstrate an understanding of digital to analog conversion (DAC) by

a. developing a menu driven program to select various analog outputs (1a, 1b, 2a, 2c, 2d, 2e);

b. writing subroutines to output various analog outputs (1a, 1b, 2a, 2c, 2d, 2e);

c. building a digital to analog converter (1a, 1b, 2a, 2c, 2d, 2e).

3. Demonstrate an understanding of a multitasking computer system by

a. interfacing a LCD display to the microprocessor (1a, 1b, 2a, 2c, 2d, 2e);

b. developing a subroutine to take advantage of the handshaking feature of the LCD display (1a, 1b, 2a, 2c, 2d, 2e);

c. programming the microprocessor to output all data to the LCD display (1a, 1b, 2a, 2c, 2d, 2e);

d. retrieving data from the keyboard and display said data on the LCD display (1a, 1b, 2a, 2c, 2d, 2e);

e. playing a computer generated song simultaneously on a speaker without interruption (1a, 1b, 2a, 2c, 2d, 2e).

4. Demonstrate an understanding of real time software interrupts by

a. using the onboard real time interrupt capability of the microprocessor to keep time (1a, 1b, 2a, 2c, 2d, 2e);

b. setting up memory locations for storing seconds, minutes, and hours for display on a LCD display (1a, 1b, 2a, 2c, 2d, 2e);

c. developing software to allow for input of time and other data for display on the LCD display (1a, 1b, 2a, 2c, 2d, 2e).

CHEF 1264 - Practicum Culinary Arts/Chef Training

General

Course Key
12123

Course Rubric
CHEF

Course Number
1264

Course Title
Practicum in Culinary Arts and Chef Training

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14) Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate and legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Required Prerequisites: Enrollment into class with approved petition. Class to be taken within last 12 hours of degree program.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Enrollment into class with approved petition Class to be taken within last 12 hours of degree program

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

1. Complete paperwork for employment by

a. completing a job application (1a);

b. organizing a resume (1a);

c. composing a two week resignation letter (if necessary) (1a).

2. Become employed in the culinary arts field at an approved site by

a. completing an interview with the hiring company (1c);

b. becoming hired as an employee in a foodservice company (1b);

c. completing 224 hours of work in 16 week semester (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

3. Illustrate work experience in a written project by

a. summarizing weekly experience on time sheets (1a, 1b);

b. sketching kitchen of employment (1a, 1b, 2e);

c. outlining menus, organizational charts of front and back of the house, management styles, and history of company (1a, 1b, 2c, 2d).

4. Evaluate experience by

a. preparing self-evaluation (1a, 1b, 1c);

b. preparing worksite evaluation (1a, 2d);

c. preparing practicum experience evaluation (1a, 1b).

CHEF 1301 - Basic Food Preparation

General

Course Key
14371

Course Rubric
CHEF

Course Number
1301

Course Title
Basic Food Preparation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. Recommended Prerequisite/Corequisite: CHEF-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/ Corequisite

10
A Requirement block where all subrequirements are required

take Chef-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): CHEF 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate skills in knife, tool and equipment handling, and operate equipment safely and correctly; demonstrate proficiency in dry and moist heat cooking methods; produce a variety of food products applying principles of food handling and preparation; implement professional standards in food production.

1. Demonstrate an understanding of areas of culinary history and professionalism by

a. identifying the forefathers of culinary arts and how they have shaped the industry today (1a);

b. explaining the organization of classic and modern kitchen brigades (1a, 2d);

c. demonstrating principles of culinary professionalism in labs and practical exams (1b, 1c, 2a, 2b).

2. Practice procedures of sanitation and safety by

a. identifying causes of food borne illness (1a);

b. planning flow of foods in accordance to food safety standards (1b);

c. using a safe and sanitary work environment (1a, 2a, 2d).

3. Apply fundamental principles of nutrition by

a. explaining importance of categories of nutrients in a healthy diet (1a, 1b);

b. identifying nutrition trends that affect food service (1a, 1b);

c. applying use of alternative ingredients and substitutes in recipes/menus (1a, 2a).

4. Demonstrate skills of equipment and small ware operation by

a. identifying a variety of professional kitchen tools and equipment of use (1a, 2e);

b. demonstrating care for knives (2a);

c. explaining how a professional kitchen is organized (1a, 1b, 2d).

5. Explain common kitchen staples and their uses by

a. describing basic principles of the physiology of the sense of taste and smell (1a);

b. identifying a variety of herbs, spices, oils, vinegars, wines, and other flavorings (1a);

c. demonstrating proper use of flavoring ingredients to create, enhance, or alter the natural flavors of a dish (1b, 2a).

6. Demonstrate working knowledge of basic culinary techniques by

a. using principles of mise en place (1a, 1b, 2e);

b. preparing items needed prior to actual cooking (2a);

c. demonstrating scaling techniques (2e);

d. modifying recipe yield amounts (1a, 1b);

e. demonstrating ability to perform all knife cuts from memory (2a).

7. Summarize principles of cooking by

a. explaining how heat is transferred to foods through conduction, convection, and radiation (1a);

b. explaining how heat affects foods (1a);

c. identifying the basic principles of various cooking methods (1a, 1b).

8. Demonstrate cooking methods by

a. using principles of dry and moist combination cooking methods (1a, 2a);

b. preparing stock, soups, and sauces (1a, 2a);

c. using principles of egg cookery (1a, 2a);

d. using principles of meat cookery - beef, poultry, pork, veal, and lamb (1a, 2a).

CHEF 1302 - Principles of Healthy Cuisine

General

Course Key
12124

Course Rubric
CHEF

Course Number
1302

Course Title
Principles of Healthy Cuisine

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Adaptation of basic cooking techniques to lower the fat and caloric content. Alternative methods and ingredients will be used to achieve a healthier cooking style. Modify recipes and substitute ingredients to reduce calories, sugar, fat, and sodium; create recipes using healthy techniques; identify common food allergies and special dietary needs; relate nutritional guidelines to diets and recipe production Licensure/Certification Agency: American Culinary Federation Educational Institute. Required Prerequisites: CHEF-1301, CHEF-1305 and CHEF-2301 with a "C" or better.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take CHEF-1301 CHEF-2301(9656); minimum grade C; #Take CHEF-1205 or CHEF-1305(11754); Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305 and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Modify recipes and substitute ingredients to reduce calories, sugar, fat, and sodium; create recipes using healthy techniques; identify common food allergies and special dietary needs; relate nutritional guidelines to diets and recipe production.

1. Demonstrate working knowledge of basic culinary techniques by

a. assembling equipment for use (2e);

b. demonstrating equipment operation (2e);

c. demonstrating hand tool usage (2e);

d. demonstrating sanitation and safety practices (2d);

e. demonstrating proper use/care of knives (2e);

f. demonstrating proper mise en place of ingredients (1a, 1b, 1c, 2a);

g. converting recipes (1a, 1b);

h. demonstrating cooking methods - dry, moist and combination (1b, 2c, 2e);

i. demonstrating scaling techniques (1b, 2c, 2e).

2. Identify key nutrition concepts and terms by

a. defining nutrition (1a, 1b);

b. discussing nutrition as the study of foods and health (1a, 1b).

3. Modify recipes and substitute ingredients to reduce calories, sugar, fat, and sodium by

a. modifying recipes to make them healthier in accordance with the Dietary Guidelines for Americans and USDA My Plate (1a, 1b, 2a, 2b, 2c);

b. utilizing ingredients and techniques that produce a more healthy cuisine (1a, 1b, 2a, 2b, 2c);

c. preparing healthful recipes utilizing ingredients and techniques to produce healthy cuisine (1a, 1b, 2a, 2b, 2c).

4. Identify common food allergies and special dietary needs by

a. discussing common food allergies (1a, 1b);

b. discussing special diets - spa, vegetarian, modified (1a, 1b).

5. Produce food presentations by

a. demonstrating buffet service techniques (1b, 2c);

b. demonstrating plate presentation (1b, 2c);

c. demonstrating various garnish techniques (1b, 2c).

6. Demonstrate proficient preparation of foods by

a. prepping (handling, cleaning, cutting, portioning, cooking/cooking with, and presenting) appetizers, salads, and salad dressings (1a, 1b, 2a);

b. prepping (handling, cleaning, cutting, portioning, cooking/cooking with, and presenting) stocks, soups, sauces, relishes, and spreads (1a, 1b, 2a);

c. prepping (handling, cleaning, cutting, portioning, cooking/cooking with, and presenting) main course selections (1a, 1b, 2a);

d. prepping (handling, cleaning, cutting, portioning, cooking/cooking with, and presenting) vegetables, potatoes, grains, and legumes (1a, 1b, 2a);

e. prepping (handling, cleaning, cutting, portioning, cooking/cooking with, and presenting) desserts, breads, and quick breads (1a, 1b, 2a).

7. Demonstrate menu planning procedures/execution by

a. planning a menu according to guidelines (1a, 1b, 2a, 2b, 2c);

b. converting recipes (1a, 1b, 2a, 2b, 2c);

c. creating an ingredient list needed (1a, 1b, 2a, 2b, 2c);

d. executing production of menu (1a, 1b, 2a, 2b, 2c);

e. critiquing performance (1a, 1b, 2a, 2b, 2c).

CHEF 1305 - Sanitation and Safety

General

Course Key
11754

Course Rubric	Course Number	Course Title
CHEF	1305	Sanitation and Safety

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of personal cleanliness; sanitary practices in food preparation; causes, investigation and control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify causes of and prevention procedures for food-borne illness, intoxication, and infection; discuss personal hygiene and safe food handling procedures; describe food storage and refrigeration techniques; explain sanitation of dishes, equipment, and kitchens including cleaning material, garbage, and refuse disposal; discuss Occupational Safety and Health Administration (OSHA) requirements and workplace safety programs.

1. Demonstrate an understanding of basic sanitation and safety procedures by

a. identifying consumer safe foods expectations (1a, 2b);

b. listing food borne illnesses/causes (1a, 2c);

c. defining sanitation in terms of food, people, facilities/equipment (1a, 2c);

d. discussing microorganisms, bacteria, viruses, parasites, and fungi (1a, 1b);

e. listing contamination and food borne illnesses; biological, chemical, and physical hazards (1a, 1b);

f. listing ten safe food handling rules (1a, 1b, 2c);

g. identifying types of and accident prevention/actions for emergencies (1a, 1b, 1c, 2a, 2b, 2c).

2. Demonstrate an understanding of the impact of food safety on a business operation by

a. distinguishing food safety/sanitation challenges (1a, 1b, 1c, 2c);

b. identifying safe food handler traits (1b, 1c);

c. outlining effective personal hygiene system development (1a, 1b, 1c, 2c);

d. demonstrating proper use of food thermometers (1a, 2b);

e. distinguishing sanitary design, interior construction design (1a, 1b, 2a, 2b, 2c);

f. distinguishing waste management (1a, 1b, 2d);

g. defining integrated pest management (IPM) program (1a, 1b, 2d).

3. Demonstrate an understanding of the flow of food through the operation by

a. identifying safe food sources (1a, 1b);

b. discussing receiving/inspecting techniques (1a, 1b, 1c, 2a, 2b, 2d);

c. discussing shipment rejections/spoilage (1a, 1b, 1c, 2a, 2b, 2d);

d. identifying safe storage principles (1a, 1b, 1c, 2a, 2b, 2d);

e. listing storage options and proper storage for specific foods (1a, 1b, 1c, 2a, 2b, 2d);

f. explaining food protection during preparation and service (1a, 1b, 1c, 2a, 2b, 2d);

g. discussing time/temperature principles (1a, 1b, 1c, 2a, 2b, 2d);

h. acknowledging sanitary food service (1a, 1b, 1c, 2a, 2b, 2d);

i. identifying food protection methods in service areas (1a, 1b, 1c, 2a, 2b, 2d);

j. acknowledging food spoilage signs (1a, 1b);

k. examining sanitary facilities/equipment (1a, 1b, 1c, 2a, 2b, 2d);

l. surveying cleaning needs, selection of proper cleaning materials (1a, 1b, 1c, 2a, 2b, 2d).

4. Demonstrate an understanding of management issues facing operation manager and staff by

a. identifying foodservice manager role in sanitation (1a, 1b);

b. summarizing training and system monitoring (1a, 1b, 1c, 2a, 2b, 2d, 2e);

c. explaining the Americans with Disabilities Act (ADA) (1a, 1b);

d. examining types, arrangement, and installation of kitchen equipment (1a, 1b, 2a, 2c, 2e);

e. identifying hazardous materials use/proper storage (1a, 1b, 1c, 2a, 2b, 2d);

f. identifying management's responsibility in cleaning schedule introduction, implementation, and monitoring (1a, 1b, 1c, 2a, 2b, 2d);

g. outlining pest control operator methods (1a, 1b, 1c, 2a, 2b, 2d);

h. explaining the Occupational Safety and Health Administration (OSHA) (1a, 1b, 1c, 2a, 2b, 2d);

i. establishing a crisis management plan (1a, 1b, 1c, 2a, 2b, 2d, 2e).

5. Explain the importance of the HACCP system in the workplace by

a. describing hazard control food safety programs (1a, 1b, 1c, 2a, 2c, 2d);

b. identifying critical control points (1a, 1b, 1c, 2a, 2c, 2d);

c. outlining HACCP/S.A.F.E. systems (1a, 1b, 1c, 2a, 2c, 2d);

d. comprehending HACCP system setup (1a, 1b, 1c, 2a, 2c, 2d).

6. Demonstrate knowledge of relevant topics by

a. presenting a research project based on course related topics in written format (1a, 1b, 1c, 2a, 2c, 2e);

b. presenting a research project based on course related topics in oral format (1a, 1b, 1c, 2a, 2c, 2e).

CHEF 1310 - Garde Manger

General

Course Key
15325

Course Rubric
CHEF

Course Number
1310

Course Title
Garde Manger

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) A study of cold foods and garnishes. Emphasis on design, techniques, and display of fine foods. Identify tools and equipment common to the Garde Manger Station; develop fundamental skills in preparation of forcemeats; demonstrate basic skills in charcuterie and aspic development; and demonstrate cold food techniques for presentation. Licensing/Certification Agency: American Culinary Federation Educational Institute Required Prerequisites: CHEF-1301, CHEF-1305 and CHEF-2301 with a "C" or better.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take CHEF-1301 CHEF-2301; Minimum grade C; #Take CHEF-1205 or CHEF-1305; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305 and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify tools and equipment common to the Garde Manger Station; develop fundamental skills in preparation of forcemeats; demonstrate basic skills in charcuterie and aspic development; demonstrate cold food techniques for presentation.

1. Describe the history and origins of the Garde Manger by

a. explaining origins and structure of the European apprenticeship process (1a);

b. describing the personal abilities required of the modern Garde Manger chef (1a);

c. describing the professional development goals and activities for building a career in food service (1a, 2a).

2. Demonstrate an understanding of banquet organization by

a. summarizing the importance of ergonomics in kitchen layout and design (1a, 2a, 2d);

b. using the proper methods of dry and refrigerated storage (1b, 2a);

c. demonstrating buffet arrangement (1a, 2e).

3. Use tools and equipment of the Garde Manger by

a. selecting proper tools (1b, 2e);

b. demonstrating proper care of tools (2a, 2e);

c. demonstrating proper use of tools (1b, 2a, 2e).

4. Use preparation skills of the Garde Manger by

a. preparing Amuse-Bouches, appetizers, and Hors d'Oeuvres (2a);

b. assembling salads with vegetables, fruits, and grains (2a);

c. assembling sandwiches (2a).

5. Use fabrication skills of the Garde Manger by

a. demonstrating fabrication of poultry, game birds, game meats, meats, fish, shellfish, and specialty meats (2a);

b. producing quality points of food products (2a);

c. demonstrating proper handling/storage of food products (1b, 2a).

6. Make preserved foods of the Garde Manger by

a. summarizing concepts of preserving methods (1a);

b. using methods of curing, sausage making, and smoking (2a);

c. making pates, terrines, mousselines, and kitchen made cheeses/creams (2a).

7. Create displayed arts of the Garde Manger by

a. preparing sculpting, carving, and modeling (2a);

b. planning food decoration, platter presentation, and buffet (2a);

c. creating buffet for service (2a).

CHEF 1340 - Meat Preparation and Cooking

General

Course Key
14896

Course Rubric
CHEF

Course Number
1340

Course Title
Meat Preparation and Cooking

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Study of the preparation, storage, and cooking techniques for beef, pork, lamb, poultry, seafood, and game. Includes moist, dry, and combination heat preparation methods as related to both classical and modern methods of preparation of dishes. Required Prerequisite: CHEF-1301, CHEF-1305 and CHEF-2301 with a "C" or better

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take CHEF-1301(6415) CHEF-1305 CHEF-2301; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305 and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

Identify types, species, and market forms of beef, pork, lamb, poultry, seafood, and wild game; explain safe handling procedures; prepare a variety of menu items using all types of meats, poultry, and seafood in both moist heat and dry heat cooking techniques; demonstrate processing and preparation techniques as related to sanitation.

CHEF 1341 - American Regional Cuisine

General

Course Key
12129

Course Rubric
CHEF

Course Number
1341

Course Title
American Regional Cuisine

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) A study of the development of regional cuisine's in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and acquire knowledge of recipe strategies and production systems. Compare the unique similarities and differences in American cuisine; explain the importance of the immigration phenomena in the shaping of American cuisine; produce regional cuisine dishes which employ standard principles, concepts, and quality factors. Licensure/Certification Agency: American Culinary Federation Educational Institute. Required Prerequisites: CHEF-1301, CHEF-1305 and CHEF-2301 with a "C" or better.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take CHEF-1301 CHEF-2301; Minimum grade C; #Take CHEF-1205 or CHEF-1305; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305 and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Compare the unique similarities and differences in American cuisine; explain the importance of the immigration phenomena in the shaping of American cuisine; produce regional cuisine dishes which employ standard principles, concepts, and quality factors.

1. Differentiate the different regions of the United States through cuisine by

a. summarizing differences in cuisines through the influence of history, geography, topography, climate, crop, and livestock (1a, 1b);

b. distinguishing differences of flavorings in different regions (1a).

2. Demonstrate various cooking methods by

a. practicing baking/roasting, grilling/broiling, braising, boiling/simmering/ poaching, steaming, sautéing and deep frying (2a).

3. Demonstrate the impact of international cuisine on American cuisine by

a. comparing ingredients used in American regional cuisine to international cuisines (1a);

b. preparing various dishes from different regions (2a).

4. Create a meal distinguishing a certain American region by

a. composing a menu specific to the region (1a, 1b);

b. making the meal for service (2b).

5. Evaluate menus/meals for ethnicity of assigned American regions by

a. evaluating his/her own menu/meal (1a, 1c, 2b);

b. evaluating classmates' menus/meals (1a, 1c, 2b).

CHEF 1345 - International Cuisine

General

Course Key
12130

Course Rubric
CHEF

Course Number
1345

Course Title
International Cuisine

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) The study of classical cooking skills associated with the preparation and service of international and ethnic cuisine's. Topics include similarities between food production systems used in the United States and other regions of the world. Explain the impact of global cuisines in the development of classical cooking principles and food preparation; interpret basic and advanced cooking principles in the preparation of classical food dishes; identify the origin of menu items. Licensing/Certification Agency: American Culinary Federation Educational Institute Required Prerequisites: CHEF-1301, CHEF-1305 and CHEF-2301 with a "C" or better.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take CHEF-1301 CHEF-2301; Minimum grade C; #Take CHEF-1205 or CHEF-1305; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305 and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the impact of global cuisines in the development of classical cooking principles and food preparation; interpret basic and advanced cooking principles in the preparation of classical food dishes; identify the origin of menu items.

1. Differentiate foreign cuisines from American cuisine by

a. summarizing differences in cuisines through the influence of history, geography, topography, climate, crops, and livestock (1a, 1b);

b. distinguishing differences of flavorings in different countries (1a);

c. identifying differences in meal services and eating methods of various cultures (1a, 1b).

2. Demonstrate cooking methods of various cuisines by

a. practicing bake/roast, grill/broil, braise, boil/simmer/poach/steam, sauté, and deep fry (2a);

b. using various equipment developed in different countries (2e).

3. Demonstrate the impact of international cuisines on American cuisine by

a. comparing the ingredients used in international cuisine to American cuisine (1a);

b. preparing various dishes from different countries (2a).

4. Create a meal distinguishing a certain country/cuisine by

a. composing a menu specific to a country/ethnicity (1a, 1b);

b. making the meal for service (2a).

5. Evaluate menus/meals for ethnicity of assigned countries by

a. evaluating his/her own menu/meal (1a, 1c, 2b);

b. evaluating classmates' menus/meals (1a, 1c, 2b).

CHEF 1400 - Professional Cooking and Meal Service

General

Course Key
14897

Course Rubric
CHEF

Course Number
1400

Course Title
Professional Cooking and Meal Service

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Technical aspects of food preparation in the commercial kitchen. This will be accomplished by preparing and serving meals according to a production schedule. Emphasis on teamwork, professionalism, guest relations, and table service. Required Prerequisites: CHEF-1301, CHEF-1305, RSTO-1304, and CHEF-2301 with a "C" or better

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CHEF-1301(6415) CHEF-1305(11754) CHEF-2301(12136) RSTO-1304; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305, RSTO 1304, and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify common food products and commercial restaurant equipment; operate and clean equipment; demonstrate basic knife and cooking skills; demonstrate teamwork and time management in the preparation and service of meals in a commercial setting.

CHEF 2301 - Intermediate Food Preparation

General

Course Key
12136

Course Rubric
CHEF

Course Number
2301

Course Title
Intermediate Food Preparation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Continuation of previous food preparation course. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Master the identification of spices, herbs, oils, and vinegar's; discuss and prepare various proteins; discuss and prepare various fruits, vegetables, and starches; discuss and prepare sandwiches and salads. Licensure/Certification Agency: American Culinary Federation Educational Institute. Required Prerequisite: CHEF-1301 and CHEF-1305 with a "C" or better. Student must have current Serv-Safe Manager Certification. Enrollment into class with approved petition.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take CHEF-1301; Minimum grade C; #Take CHEF-1205 or CHEF-1305; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301 and CHEF 1305 with a "C" or better Student must have current Serv-Safe Manager Certification Enrollment into class with approved petition

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Master the identification of spices, oils, and vinegars; discuss and prepare various proteins; discuss and prepare various fruits, vegetables, and starches; discuss and prepare sandwiches and salads.

1. Demonstrate working knowledge of basic culinary techniques by

a. assembling equipment for use (2e);

b. demonstrating equipment operation (2e);

c. demonstrating hand tool usage (2e);

d. demonstrating sanitation and safety practices (2d);

e. demonstrating proper use/care of knives (2e);

f. demonstrating proper mise en place of ingredients (1a, 1b, 1c, 2a);

g. identifying spices, oils, and vinegars (1b);

h. converting recipes (1a, 1b);

i. demonstrating cooking methods - dry, moist and combination (1b, 2c, 2e);

j. demonstrating scaling techniques (1b, 2c, 2e).

2. Produce food presentations by

a. demonstrating buffet service techniques (1b, 2c);

b. demonstrating plate presentation (1b, 2c);

c. demonstrating various garnish techniques - apple swan, tomato rose, vegetable carvings, centerpiece, fluted mushroom, etc. (1b, 2c).

3. Identify various foods by

a. describing/selecting various dairy products: cheese, milk, cream, butter (1a, 1b);

b. describing/selecting various starches: grains, potatoes, pastas (1a, 1b);

c. describing/selecting various vegetables (1a, 1b);

d. describing/selecting various fruits (1a, 1b);

e. describing/selecting various fish and shellfish (1a, 1b);

f. describing/selecting various vegetarian (analogous) ingredients (1a, 1b).

4. Demonstrate proficient preparation of foods by

a. prepping (handling, cleaning, cutting, portioning), cooking/cooking with, and/or presenting various dairy products (1a, 1b, 2a);

b. prepping (handling, cleaning, cutting, portioning), cooking/cooking with, and/or presenting various starches: grains, potatoes, and pastas (1a, 1b, 2a);

c. prepping (handling, cleaning, cutting, portioning), cooking/cooking with, and/or presenting a rice pilaf (1a, 1b, 2a);

d. prepping (handling, cleaning, cutting, portioning), cooking/cooking with, and/or presenting various vegetables (1a, 1b, 2a);

e. prepping (handling, cleaning, cutting, portioning), cooking/cooking with, and/or presenting a roasted bell pepper (1a, 1b, 2a);

5. Demonstrate menu planning procedures/execution by

a. planning a menu according to guidelines (1a, 1b, 2a, 2b, 2c);

b. converting recipes (1a, 1b, 2a, 2b, 2c);

c. creating an ingredient list needed (1a, 1b, 2a, 2b, 2c);

d. executing production of menu (1a, 1b, 2a, 2b, 2c);

e. critiquing performance (1a, 1b, 2a, 2b, 2c).

CHEF 2302 - Saucier

General

Course Key
14903

Course Rubric
CHEF

Course Number
2302

Course Title
Saucier

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Required Prerequisites: CHEF-1301, CHEF-1305, and CHEF-2301 with a "C" or better

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take CHEF-1301(6415) CHEF-1305 CHEF-2301; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305, and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

Stock and soup preparation, uses and storage, and sauce characteristics; prepare grand sauces, emulsions, contemporary sauces, compound butters, and vegetable sauces; produce relishes, chutneys, marinades, compotes, and vinaigrette.

CHEF 2336 - Charcuterie

General

Course Key
14898

Course Rubric
CHEF

Course Number
2336

Course Title
Charcuterie

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Advanced concepts in the construction of sausages, pates, and related force meat preparations. Required Prerequisites: CHEF-1301, CHEF-1305 and CHEF-2301 with a "C" or better

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take CHEF-1301(6415) CHEF-1305 CHEF-2301; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305, and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

1. The student will display competence in applying culinary techniques that are necessary in the food service industry. (1a, 1b, 2a, 2b, 2c)

2. The student will exhibit professional behavior and work ethic necessary to compete and advance in the hospitality industry. (1a, 1b, 2a, 2b, 2c)

3. The student will produce, present and evaluate a variety of culinary dishes. (1a, 1b, 2a, 2b, 2c)

4. The student will prepare various cured & smoked preparations (1a, 1b, 2a, 2b, 2c)

5. The student will prepare forcemeats & sausages for appetizers and cold plates (1a, 1b, 2a, 2b, 2c)

6. The student will prepare pates & terrines from meats, fish, shellfish, and vegetable products (1a, 1b, 2a, 2b, 2c)

7. The student will prepare en croute forcemeats products (1a, 1b, 2a, 2b, 2c)

8. The student will prepare galantines & roulades from poultry, meat, & fish forcemeats (1a, 1b, 2a, 2b, 2c)

9. The student will prepare mousses and timbales from meats, fish, shellfish, and vegetable products (1a, 1b, 2a, 2b, 2c)

10. The student will explain principles of gross piece construction and presentation. (1a, 1b, 2a, 2b, 2c)

11. The student will present various preserved & forcemeat-based items in Buffet Style Presentation with use of aspic gelee & chaud froid (1a, 1b, 2a, 2b, 2c)

12. The student will prepare various cured & smoked preparations (1a, 1b, 2a, 2b, 2c)

13. Students cook a variety of dishes using curing & smoking techniques (1a, 1b, 2a, 2b, 2c)

14. The student will prepare forcemeats & sausages for appetizers and cold plates (1a, 1b, 2a, 2b, 2c)

15. Students cook a variety of forcemeats to be used in sausages, galantines, roulades, pates, terrines, mousses & timbales. (1a, 1b, 2a, 2b, 2c)

16. The student will prepare pates & terrines from meats, fish, shellfish, and vegetable products (1a, 1b, 2a, 2b, 2c)

17. The student will prepare en croute forcemeats products (1a, 1b, 2a, 2b, 2c)

18. The student will prepare galantines & roulades from poultry, meat, & fish forcemeats (1a, 1b, 2a, 2b, 2c)

19. The student will prepare mousses and timbales from meats, fish, shellfish, and vegetable products (1a, 1b, 2a, 2b, 2c)

20. The student will demonstrate menu planning procedures/execution. The student will be able to

a. Plan a menu according to guidelines (1a, 1b, 2a, 2b, 2c)

b. Convert recipes (1a, 1b, 2a, 2b, 2c)

c. Create an ingredient list needed (1a, 1b, 2a, 2b, 2c)

d. Execute production of menu (1a, 1b, 2a, 2b, 2c)

e. Critique performance (1a, 1b, 2a, 2b, 2c)

CHEF 2341 - Advanced Culinary Competition

General

Course Key
14899

Course Rubric
CHEF

Course Number
2341

Course Title
Advanced Culinary Competition

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Skill development for culinary competition by offering advanced experience in salon presentations as well as hot food competition. Required Prerequisites: CHEF-1301, CHEF-1305 and CHEF-2301 with a "C" or better

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take CHEF-1301(6415) CHEF-1305 CHEF-2301; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CHEF 1301, CHEF 1305, and CHEF 2301 with a "C" or better

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

Design and prepare salon pieces and hot foods to meet competition standards.

CHEM 1405 - Introductory Chemistry I (Lecture/Lab)

General

Course Key
16294

Course Rubric
CHEM

Course Number
1405

Course Title
Introductory Chemistry I (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3). Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students. Required Prerequisite: TSI met in Math.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Must be TSI Met in Math.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12184) or MATH-0116; Minimum grade C; # Take MATH-DEV2 or MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

CHEM 1406 - Intr Chemistry I-Allied Hlth (Lec/Lab)

General

Course Key
16295

Course Rubric
CHEM

Course Number
1406

Course Title
Introductory Chemistry I (Lecture + Lab, Allied Health Emphasis)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Emphasis on importance of chemical concepts to living organisms - including humans. Designed for non-science and allied health students. Required Prerequisite: TSI met in Math.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

TSI Met in Math.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12184) or MATH-0116; Minimum grade C; # Take MATH-DEV2 or MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

CHEM 1407 - Intro Chemistry II (Lecture + Lab)

General

Course Key
16296

Course Rubric
CHEM

Course Number
1407

Course Title
Introductory Chemistry II (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students. Required Prerequisite: CHEM-1406, CHEM-1405 or CHEM-1411

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take CHEM-1406(11836) CHEM-1405(11835) or CHEM-1411(11840);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

CHEM 1409 - Gen Chemistry Engr Maj (lec/lab)

General

Course Key
16297

Course Rubric
CHEM

Course Number
1409

Course Title
General Chemistry for Engineering Majors (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Fundamental principles of chemistry for engineering majors; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, acid-base concepts, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, phase-diagrams, introduction to chemical equilibrium, chemical thermodynamics, electrochemistry, and an introduction to descriptive inorganic chemistry and organic chemistry. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Required Prerequisite: MATH-1314, High School Chemistry or equivalent preparation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

CHEM 1411 - General Chemstry I (Lecture/Lab) Honors

General

Course Key
16299

Course Rubric
CHEM

Course Number
1411

Course Title
General Chemistry I (Lecture + Lab) Honors

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Basic laboratory experiments supporting theoretical principles in lecture; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. Required Prerequisite: MATH-1314 or equivalent academic preparation Recommended Prerequisite: High School chemistry

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-1314(9762) MATH-1316(9763) MATH-2412(9981) or MATH-2413;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

CHEM 1411 - General Chemistry I (Lecture + Lab)

General

Course Key
16298

Course Rubric
CHEM

Course Number
1411

Course Title
General Chemistry I (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3)Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Basic laboratory experiments supporting theoretical principles in lecture; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. Required Prerequisite: MATH-1314 or equivalent academic preparation Recommended Prerequisite: High School chemistry

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 course; from MATH-1314 MATH-1316 MATH-2412 MATH-2413;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

CHEM 1412 - General Chemistry II (Lecture + Lab)

General

Course Key
16300

Course Rubric
CHEM

Course Number
1412

Course Title
General Chemistry II (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Required Prerequisite: CHEM-1411 or CHEM-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take CHEM-1411(11840) or CHEM-1409;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

CHEM 1412 - General Chemistry II (Lecture/Lab) Hons

General

Course Key
16301

Course Rubric
CHEM

Course Number
1412

Course Title
General Chemistry II (Lecture + Lab) Honors

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3)Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Required Prerequisite: CHEM-1411 or CHEM-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take CHEM-1411(9583) or CHEM-1409;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

CHEM 2389 - Academic Cooperative

General

Course Key
16303

Course Rubric
CHEM

Course Number
2389

Course Title
Academic Cooperative

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
5

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-1-5) An instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual students will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena. Students will conduct undergraduate research under the direction of a faculty member in chemistry. Required Prerequisite: CHEM-1411, CHEM-1405, or CHEM-1406 and instructor permission.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CHEM-1411 CHEM-1405 OR CHEM-1406;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

CHEM 2289 - Academic Cooperative

General

Course Key
16302

Course Rubric
CHEM

Course Number
2289

Course Title
Academic Cooperative

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-4) An instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual students will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena. Required Prerequisite: CHEM-1411, CHEM-1405, or CHEM-1406 and instructor permission.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CHEM-1411 CHEM-1405 OR CHEM-1406;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

CHEM 2423 - Organic Chemistry I (Lecture + Lab)

General

Course Key
16304

Course Rubric
CHEM

Course Number
2423

Course Title
Organic Chemistry I (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-4) Fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Methods for the purification and identification of organic compounds will be examined. This course is intended for students in science or pre-professional programs. Required Prerequisite: CHEM-1412

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CHEM-1412;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

CHEM 2425 - Organic Chemistry II (Lecture + Lab)

General

Course Key
16305

Course Rubric
CHEM

Course Number
2425

Course Title
Organic Chemistry II (Lecture + Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-4).Continuation of CHEM 2423. Advanced principles of organic chemistry will be studied, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Laboratory activities reinforce advanced principles of organic chemistry, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. This course is intended for students in science or pre-professional programs. Required Prerequisite: CHEM-2423

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CHEM-2423;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

CHIN 1411 - Beginning Chinese I

General

Course Key
16306

Course Rubric
CHIN

Course Number
1411

Course Title
Beginning Chinese I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture through contextualized presentations, interactive activities, and extensive laboratory practice.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CJLE 1345 - Intermediate Crime Scene Investigation

General

Course Key
12987

Course Rubric
CJLE

Course Number
1345

Course Title
Intermediate Crime Scene Investigation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Topics include objectives, preparations, procedures, and methods of crime scene search; value of crime scene sketches and their relationship to crime scene photographs; fingerprints as physical evidence, fingerprint identification and classification, types of impressions and techniques for locating and developing impressions. Satisfies Texas Commission on Law Enforcement (TCLEOSE) Course #2106.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify objectives, preparation, and procedures for searching a crime scene; diagram crime scene sketches and identify their relationship to photographs and videos; and identify and classify fingerprints, types of impressions, and techniques for locating and developing impressions.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of investigation by
    a. describing the initial examination of the scene (1a, 1b, 1c, 2a, 2b, 2c);
    b. defining important considerations in crime scene investigations (1a, 1b, 1c, 2a, 2b, 2c);
    c. identifying crime scenes for various offenses (1a, 1b, 2a, 2b, 2c).
2. Demonstrate an understanding of evidence by
    a. defining chain of custody (1a, 1b, 2a, 2c);
    b. identifying the guidelines for forensic laboratory management practices (1a, 1b, 2a, 2c, 2d, 2e);
    c. identifying specialized personnel at a crime scene and their function (1a, 1b, 2a, 2b, 2c);
    d. defining trace evidence (1a, 1b, 2a, 2c);
    e. describing evidence from various sources (1a, 1b, 2a, 2c);
    f. describing the advantages and disadvantages for collection and preservation of physical evidence (1a, 1b, 2a, 2b).
3. Demonstrate the ability to conduct independent research on issues related to criminal justice by
    a. identifying pertinent and legitimate resources (1a, 1b, 2a, 2b, 2c);
    b. synthesizing research and acquiring knowledge (1a, 1b, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2c).
4. Demonstrate an understanding of effective usage of scientific information in the field of criminal justice by
    a. determining impact of scientific advancement of the criminal justice system (1a, 1b, 1c, 2b, 2c);
    b. identifying strengths and weakness of certain evidence, i.e. crime scene photography (1a, 1b, 2a, 2b, 2c).

CJLE 1373 - Serial Killers & Extraordinary Homicide

General

Course Key
14455

Course Rubric
CJLE

Course Number
1373

Course Title
Serial Killers and Extraordinary Homicide

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0). This course will cover the study of serial killers, mass murderers and other forms of extraordinary murder. We will examine the history and frequency of these crimes, the profiles of the killers (and their victims), explore theories of causation, and discuss the special issues surrounding investigation, prosecution, punishment, and prevention of these offender types. Recommended Prerequisite(s): CRIJ-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Recommended Prerequisite

10
A Requirement block where all subrequirements are required

Take CRIJ-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CRIJ 1301

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes

Learning outcomes/objectives are determined by local occupational needs and business and industry trends. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Articulate the prevalence and patterns of forms of extraordinary homicide, including serial murder, over time and across offender and victim sociodemographic characteristics
(1a, 1b, 2c).
2. Apply and contrast the main criminological theories used to explain homicide and extraordinary homicide, including serial homicide, and speak to the respective empirical validity of each as applied to rare forms of criminal offending
(1a, 1b, 1c, 2a, 2c, 2d).
3. Articulate the strategies of investigation and crime scene analysis used in the investigation and prosecution of offenders
(1a, 1b, 1c, 2a, 2c, 2d).
4. Develop critical thinking and writing skills through essay responses on examinations and writing assignments
(1a, 1b, 2c).

CJLE 1375 - Sex Crimes

General

Course Key
14456

Course Rubric
CJLE

Course Number
1375

Course Title
Sex Crimes

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0). This course serves as an introduction to criminal sexual offending, sexual victimization and other sexual behaviors, both criminal and noncriminal, which might be encountered by criminal justice professionals during their course of their duties. The course will examine the various definitions of sexual offending, the major criminological theories related to sexual offending, a brief history of social and legal responses to sex and sexual offending, and potential treatments and criminal justice responses to sexual offenders. The course will also address the consequences of criminal sexual victimization for the crime victims. Recommended Prerequisite(s): CRIJ-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Recommended Prerequisite

10
A Requirement block where all subrequirements are required

Take CRIJ-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CRIJ 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational needs and business and industry trends. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of different types and motivation of sexual offending (1a, 1b, 2c).
2. Demonstrate a general understanding of various forms of sexual offenses (1a, 1b, 2c).
3. Demonstrate an understanding of the theoretical implications of sex offenders and sexual offending (1a, 1b, 2c).
4. Identify specific definitions of various sex-related crimes (1a, 1b, 2c).
5. Discuss the ways that sex crime impacts crime victims (1a, 1b, 1c, 2a, 2c, 2d).
6. Discuss the various methods developed to assist victims in dealing with the impact of sexual crimes (1a, 1b, 1c, 2a, 2c, 2d).
7. Develop critical thinking and writing skills through essay responses on examinations and writing assignments (1a, 1b, 2c).

CJLE 1429 - Basic Peace Officer V

General

Course Key
15109

Course Rubric	Course Number	Course Title
CJLE	1429	Basic Peace Officer V
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) Supplemental course taken in conjunction with Basic Peace Officer Courses I, II, III, and IV. Satisfies or exceeds the Texas Commission on Law Enforcement approved Basic Peace Officer Academy Course #1000. Required Co-requisites: CJLE-1506, CJLE-1512, CJLE-1518 and CJLE-1524

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

Take CJLE-1506 CJLE-1512 CJLE-1518 cjle-1524
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): CJLE 1506, CJLE 1512, CJLE 1518 and CJLE 1524

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate outcomes set forth for Texas Commission on Law Enforcement Course #1000. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic fitness and wellness concepts related to the ability to perform law enforcement job tasks and to maintain a high level of fitness and wellness by
    a. describing the importance and relevance of health habits, fitness, and wellness to the law enforcement profession (1b, 2a, 2b, 2c);
    b. identifying the guidelines and principles of a safe exercise program (1b, 2a, 2b, 2c);
    c. identifying the principles of an exercise program (1b, 2a, 2b, 2c);
    d. identifying FITT for thresholds of fitness training related to cardiovascular, strength, anaerobic, and flexibility training (1a, 1b, 2a, 2b, 2c);
    e. identifying the components of an exercise program (1a, 1b, 2a, 2b, 2c);
    f. identifying safety measures for fitness training (1a, 1b, 2a, 2b, 2c).
2. Demonstrate an understanding of the development and influence of the evolution of police service models and styles by
    a. describing significant historical events that have influenced policing in the United States (1a, 1b, 2a, 2b, 2c);
    b. tracing the historical development of police service models or styles (1a, 1b, 2a, 2b, 2c);
    c. explaining the evolution of policing in Texas (1a, 1b, 2a, 2b, 2c);
    d. listing the requirements of licensees under selected sections of the current Commission Rules (1a, 1b, 2a, 2b, 2c);
    e. explaining the traditional police service model (1a, 1b, 2a, 2b, 2c);
    f. explaining community policing (1a, 1b, 2a, 2b, 2c).
3. Demonstrate an understanding of the organization's role in society and police organizational issues by
    a. explaining the police organization's role in society (1a, 1b, 2a, 2b, 2c);
    b. recognizing the values of providing quality police customer service (1a, 1b, 2a, 2b, 2c);
    c. analyzing the characteristics of traditional (formal) police organizational structure and police subculture (informal) (1a, 1b, 2a, 2b, 2c).
4. Demonstrate an understanding of and respect for professionalism as it applies to law enforcement by
    a. discussing the concept of professionalism (1a, 1b, 2a, 2b, 2c);
    b. discussing the characteristics of professionalism (1a, 1b, 2a, 2b, 2c).
5. Demonstrate an understanding and acceptance of the crucial role of ethics as related to professionalism by
    a. discussing the Law Enforcement Code of Ethics (1a, 1b, 1c, 2a, 2b, 2c);
    b. discussing ethical dilemmas in law enforcement (1a, 1b, 1c, 2a, 2b, 2c);
    c. discussing the differences between physical and moral courage (1a, 1b, 1c, 2a, 2b, 2c).
6. Demonstrate an understanding of the civil and criminal laws related to unethical behavior of peace officers by
    a. discussing Title 8 of the Texas Penal Code in relationship to an officer's behavior (1a, 1b, 2a, 2b, 2c);
    b. explaining relevant federal criminal law in relationship to an officer's behavior (1a, 1b, 2a, 2b, 2c);
    c. listing civil penalties for sexual harassment and inappropriate officer conduct (1a, 1b, 2a, 2b, 2c).
7. Demonstrate an understanding of and respect for the U.S. Constitution and Bill of Rights as they pertain to the role of peace officers and the rights of citizens by
    a. explaining the basis of the U.S. Constitution and Bill of Rights with special emphasis on the freedom of the individual and human rights (1a, 1b, 2a, 2b, 2c);
    b. defining Writ of Habeas Corpus (1a, 1b, 2a, 2b, 2c);
    c. explaining the main concepts of Article 2 and Article 3 of the Constitution (1a, 1b, 2a, 2b, 2c);
    d. explaining the rights enumerated in Constitutional Amendments I, IV, V, VI, VIII, IX, X, and XIV (1a, 1b, 2a, 2b, 2c);
    e. analyzing personal and organizational values relative to police role in relation to the Constitution and Bill of Rights (1a, 1b, 2a, 2b, 2c).
8. Demonstrate an understanding of and respect for the Texas Constitution and Bill of Rights as they pertain to the role of peace officers and the rights of citizens by
    a. explaining an individual's rights proclaimed under Article 1 of the Constitution of the State of Texas (1a, 1b, 2a, 2b, 2c);
    b. defending an individual's rights proclaimed under Article 1 of the Constitution of the State of Texas (1a, 1b, 2a, 2b, 2c);
    c. explaining Article 17 of the State Constitution as it relates to the ever evolving nature of the document (1a, 1b, 2a, 2b, 2c).
9. Demonstrate an understanding of the specific roles and interrelationships of the various components within the criminal justice system by
    a. explaining the structure and role of the criminal justice system (1a, 1b, 2a, 2b, 2c);
    b. explaining how the three components of the criminal justice system directly affect each other (1a, 1b, 2a, 2b, 2c);
    c. identifying the differences between civil and criminal law (1a, 1b, 2a, 2b, 2c);
    d. explaining the civil/criminal courts and their jurisdiction (1a, 1b, 2a, 2b, 2c).
10. Demonstrate an understanding of the statutory authority for administration of criminal procedure as enumerated by the Texas Code of Criminal Procedure (CCP) by
    a. identifying the basis for administration of criminal procedure in Texas (1a, 1b, 2a, 2b, 2c);
    b. identifying the basic rights enumerated in the CCP (1a, 1b, 2a, 2b, 2c).
11. Demonstrate an understanding of the general duties and responsibilities of officers as enumerated by the CCP by
    a. identifying magistrates and their duties (1a, 1b, 2a, 2b, 2c);
    b. identifying peace officers (1a, 2c);
    c. listing the duties of peace officers (1a, 1b, 2a, 2b, 2c);
    d. listing the duties of peace officers relating to racial profiling (1a, 1b, 2a, 2b, 2c);
    e. listing the duties of peace officers relating to forfeiture of contraband (1a, 1b, 2a, 2b, 2c).
12. Demonstrate an understanding of the courts and their criminal jurisdiction by
    a. identifying courts which have criminal jurisdiction (1a, 1b, 2a, 2b, 2c);
    b. identifying the jurisdiction of the courts of appeals (1a, 1b, 2a, 2b, 2c);
    c. identifying the jurisdiction of the court of criminal appeals (1a, 1b, 2a, 2b, 2c);
    d. identifying the jurisdiction of district courts (1a, 1b, 2a, 2b, 2c);
    e. identifying the jurisdiction of the county courts (1a, 1b, 2a, 2b, 2c);
    f. identifying the jurisdiction of the justice courts (1a, 1b, 2a, 2b, 2c);
    g. identifying the jurisdiction of municipal courts (1a, 1b, 2a, 2b, 2c).
13. Demonstrate an understanding of the procedures to be followed in the prevention and suppression of offenses by
    a. listing the duties of officers relating to family violence prevention (1a, 1b, 2a, 2b, 2c);
    b. listing the duties of officers relating to threats of injury or death to persons or damage to property (1a, 1b, 2a, 2b, 2c);
    c. listing the duties of officers relating to suppression of riots and other disturbances (1a, 1b, 2a, 2b, 2c);
    d. listing the duties of officers relating to protective orders for victims of sexual assault (1a, 1b, 2a, 2b, 2c).
14. Demonstrate an understanding of the time limitations relating to felonies and misdemeanors by
    a. identifying the time limitations relating to felony offenses (1a, 1b, 2a, 2b, 2c);
    b. identifying the time limitations relating to misdemeanor offenses (1a, 1b, 2a, 2b, 2c);
    c. identifying the time limitations relating to aggravated offenses, attempt, conspiracy, solicitation, and organized criminal activity (1a, 1b, 2a, 2b, 2c).
15. Demonstrate an understanding of court processes as they relate to criminal offenses by
    a. explaining court papers relating to offenses (1a, 1b, 2a, 2b, 2c);
    b. explaining court papers relating to witnesses (1a, 1b, 2a, 2b, 2c);
    c. explaining the bail procedure (1a, 1b, 2a, 2b, 2c).

16. Demonstrate an understanding of the process relating to inquests upon dead bodies by
    a. identifying requirements for an inquest (1a, 1b, 2a, 2b, 2c).

17. Demonstrate an understanding of the process relating to the sex offender registration program by
    a. identifying requirements for sex offenders (1a, 1b, 2a, 2b, 2c).

18. Identify the elements of offenses in the Texas Penal Code by
    a. explaining the organization of the PC (1a, 2c);
    b. explaining the general provisions of the PC (1a, 2c);
    c. describing the proof required to convict a person of an offense (1a, 1b, 2a, 2b, 2c);
    d. defining terms as they relate to multiple prosecutions (1a, 1b, 2a, 2b, 2c);
    e. explaining the general principles of criminal responsibility (Title 2) of the penal code (1a, 1b, 2a, 2b, 2c);
    f. explaining the culpable mental states (1a, 1b, 2a, 2b, 2c);
    g. identifying when one person is criminally responsible for conduct of another (1a, 1b, 2a, 2b, 2c);
    h. identifying general defenses to criminal responsibility (1a, 1b, 2a, 2b, 2c);
    i. explaining the punishments (Title 3) of the penal code (1a, 1b, 2a, 2b, 2c);
    j. applying the elements of offenses for all offenses (1a, 1b, 2a, 2b, 2c).

19. Demonstrate an understanding of the causes and effects of stress in the lives of peace officers by
    a. identifying the types of stress related to the law enforcement profession (1a, 1b, 2a, 2b, 2c);
    b. identifying the emotional and physical symptoms of the physiology of stress (1a, 1b, 2a, 2b, 2c);
    c. identifying common symptoms and illnesses associated with stress (1a, 1b, 2a, 2b, 2c);
    d. identifying common stressors for peace officers (1a, 1b, 2a, 2b, 2c).

20. Develop personal strategies for the positive management of stress by
    a. recognizing strategies to manage stress (1a, 1b, 2a, 2b, 2c);
    b. identifying ways to reduce stress through relaxation (1a, 1b, 2a, 2b, 2c).

CJLE 1506 - Basic Peace Officer I

General

Course Key
15481

Course Rubric	Course Number	Course Title
CJLE	1506	Basic Peace Officer I

Semester Credit Hours	Lecture Hours	Lab Hours
5	3	8

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-8) Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer II and III to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Training Academy. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY Texas Commission on Law Enforcement*** Required Corequisite: CJLE-1512 CJLE-1518 CJLE-1524 and CJLE-1429

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisites

10
A Requirement block where all subrequirements are required

Take CJLE-1512 CJLE-1518 CJLE-1524(15113) CJLE-1429;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): CJLE 1512 CJLE 1518 CJLE 1524 and CJLE 1429

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate outcomes set forth for Texas Commission on Law Enforcement Course #1000. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic fitness and wellness concepts related to the ability to perform law enforcement job tasks and to maintain a high level of fitness and wellness by
    a. describing the importance and relevance of health habits, fitness, and wellness to the law enforcement profession (1b, 2a, 2b, 2c);
    b. identifying the guidelines and principles of a safe exercise program (1b, 2a, 2b, 2c);
    c. identifying the principles of an exercise program (1b, 2a, 2b, 2c);
    d. identifying FITT for thresholds of fitness training related to cardiovascular, strength, anaerobic, and flexibility training (1a, 1b, 2a, 2b, 2c);
    e. identifying the components of an exercise program (1a, 1b, 2a, 2b, 2c);
    f. identifying safety measures for fitness training (1a, 1b, 2a, 2b, 2c).

2. Demonstrate an understanding of the development and influence of the evolution of police service models and styles by
    a. describing significant historical events that have influenced policing in the United States (1a, 1b, 2a, 2b, 2c);
    b. tracing the historical development of police service models or styles (1a, 1b, 2a, 2b, 2c);
    c. explaining the evolution of policing in Texas (1a, 1b, 2a, 2b, 2c);
    d. listing the requirements of licensees under selected sections of the current Commission Rules (1a, 1b, 2a, 2b, 2c);
    e. explaining the traditional police service model (1a, 1b, 2a, 2b, 2c);
    f. explaining community policing (1a, 1b, 2a, 2b, 2c).

3. Demonstrate an understanding of the organization's role in society and police organizational issues by
    a. explaining the police organization's role in society (1a, 1b, 2a, 2b, 2c);
    b. recognizing the values of providing quality police customer service (1a, 1b, 2a, 2b, 2c);
    c. analyzing the characteristics of traditional (formal) police organizational structure and police subculture (informal) (1a, 1b, 2a, 2b, 2c).

4. Demonstrate an understanding of and respect for professionalism as it applies to law enforcement by
    a. discussing the concept of professionalism (1a, 1b, 2a, 2b, 2c);
    b. discussing the characteristics of professionalism (1a, 1b, 2a, 2b, 2c).

5. Demonstrate an understanding and acceptance of the crucial role of ethics as related to professionalism by
    a. discussing the Law Enforcement Code of Ethics (1a, 1b, 1c, 2a, 2b, 2c);
    b. discussing ethical dilemmas in law enforcement (1a, 1b, 1c, 2a, 2b, 2c);
    c. discussing the differences between physical and moral courage (1a, 1b, 1c, 2a, 2b, 2c).

6. Demonstrate an understanding of the civil and criminal laws related to unethical behavior of peace officers by
    a. discussing Title 8 of the Texas Penal Code in relationship to an officer's behavior (1a, 1b, 2a, 2b, 2c);
    b. explaining relevant federal criminal law in relationship to an officer's behavior (1a, 1b, 2a, 2b, 2c);
    c. listing civil penalties for sexual harassment and inappropriate officer conduct (1a, 1b, 2a, 2b, 2c).

7. Demonstrate an understanding of and respect for the U.S. Constitution and Bill of Rights as they pertain to the role of peace officers and the rights of citizens by
    a. explaining the basis of the U.S. Constitution and Bill of Rights with special emphasis on the freedom of the individual and human rights (1a, 1b, 2a, 2b, 2c);
    b. defining Writ of Habeas Corpus (1a, 1b, 2a, 2b, 2c);
    c. explaining the main concepts of Article 2 and Article 3 of the Constitution (1a, 1b, 2a, 2b, 2c);
    d. explaining the rights enumerated in Constitutional Amendments I, IV, V, VI, VIII, IX, X, and XIV (1a, 1b, 2a, 2b, 2c);
    e. analyzing personal and organizational values relative to police role in relation to the Constitution and Bill of Rights (1a, 1b, 2a, 2b, 2c).

8. Demonstrate an understanding of and respect for the Texas Constitution and Bill of Rights as they pertain to the role of peace officers and the rights of citizens by
    a. explaining an individual's rights proclaimed under Article 1 of the Constitution of the State of Texas (1a, 1b, 2a, 2b, 2c);
    b. defending an individual's rights proclaimed under Article 1 of the Constitution of the State of Texas (1a, 1b, 2a, 2b, 2c);
    c. explaining Article 17 of the State Constitution as it relates to the ever evolving nature of the document (1a, 1b, 2a, 2b, 2c).

9. Demonstrate an understanding of the specific roles and interrelationships of the various components within the criminal justice system by
    a. explaining the structure and role of the criminal justice system (1a, 1b, 2a, 2b, 2c);
    b. explaining how the three components of the criminal justice system directly affect each other (1a, 1b, 2a, 2b, 2c);
    c. identifying the differences between civil and criminal law (1a, 1b, 2a, 2b, 2c);
    d. explaining the civil/criminal courts and their jurisdiction (1a, 1b, 2a, 2b, 2c).

10. Demonstrate an understanding of the statutory authority for administration of criminal procedure as enumerated by the Texas Code of Criminal Procedure (CCP) by
    a. identifying the basis for administration of criminal procedure in Texas (1a, 1b, 2a, 2b, 2c);
    b. identifying the basic rights enumerated in the CCP (1a, 1b, 2a, 2b, 2c).

11. Demonstrate an understanding of the general duties and responsibilities of officers as enumerated by the CCP by
    a. identifying magistrates and their duties (1a, 1b, 2a, 2b, 2c);
    b. identifying peace officers (1a, 2c);
    c. listing the duties of peace officers (1a, 1b, 2a, 2b, 2c);
    d. listing the duties of peace officers relating to racial profiling (1a, 1b, 2a, 2b, 2c);
    e. listing the duties of peace officers relating to forfeiture of contraband (1a, 1b, 2a, 2b, 2c).

12. Demonstrate an understanding of the courts and their criminal jurisdiction by
    a. identifying courts which have criminal jurisdiction (1a, 1b, 2a, 2b, 2c);
    b. identifying the jurisdiction of the courts of appeals (1a, 1b, 2a, 2b, 2c);
    c. identifying the jurisdiction of the court of criminal appeals (1a, 1b, 2a, 2b, 2c);
    d. identifying the jurisdiction of district courts (1a, 1b, 2a, 2b, 2c);
    e. identifying the jurisdiction of the county courts (1a, 1b, 2a, 2b, 2c);
    f. identifying the jurisdiction of the justice courts (1a, 1b, 2a, 2b, 2c);
    g. identifying the jurisdiction of municipal courts (1a, 1b, 2a, 2b, 2c).

13. Demonstrate an understanding of the procedures to be followed in the prevention and suppression of offenses by
    a. listing the duties of officers relating to family violence prevention (1a, 1b, 2a, 2b, 2c);
    b. listing the duties of officers relating to threats of injury or death to persons or damage to property (1a, 1b, 2a, 2b, 2c);
    c. listing the duties of officers relating to suppression of riots and other disturbances (1a, 1b, 2a, 2b, 2c);
    d. listing the duties of officers relating to protective orders for victims of sexual assault (1a, 1b, 2a, 2b, 2c).

14. Demonstrate an understanding of the time limitations relating to felonies and misdemeanors by
    a. identifying the time limitations relating to felony offenses (1a, 1b, 2a, 2b, 2c);
    b. identifying the time limitations relating to misdemeanor offenses (1a, 1b, 2a, 2b, 2c);
    c. identifying the time limitations relating to aggravated offenses, attempt, conspiracy, solicitation, and organized criminal activity (1a, 1b, 2a, 2b, 2c).

15. Demonstrate an understanding of court processes as they relate to criminal offenses by
    a. explaining court papers relating to offenses (1a, 1b, 2a, 2b, 2c);
    b. explaining court papers relating to witnesses (1a, 1b, 2a, 2b, 2c);
    c. explaining the bail procedure (1a, 1b, 2a, 2b, 2c).

16. Demonstrate an understanding of the process relating to inquests upon dead bodies by
    a. identifying requirements for an inquest (1a, 1b, 2a, 2b, 2c).

17. Demonstrate an understanding of the process relating to the sex offender registration program by
    a. identifying requirements for sex offenders (1a, 1b, 2a, 2b, 2c).

18. Identify the elements of offenses in the Texas Penal Code by
    a. explaining the organization of the PC (1a, 2c);
    b. explaining the general provisions of the PC (1a, 2c);
    c. describing the proof required to convict a person of an offense (1a, 1b, 2a, 2b, 2c);
    d. defining terms as they relate to multiple prosecutions (1a, 1b, 2a, 2b, 2c);
    e. explaining the general principles of criminal responsibility (Title 2) of the penal code (1a, 1b, 2a, 2b, 2c);
    f. explaining the culpable mental states (1a, 1b, 2a, 2b, 2c);
    g. identifying when one person is criminally responsible for conduct of another (1a, 1b, 2a, 2b, 2c);
    h. identifying general defenses to criminal responsibility (1a, 1b, 2a, 2b, 2c);
    i. explaining the punishments (Title 3) of the penal code (1a, 1b, 2a, 2b, 2c);
    j. applying the elements of offenses for all offenses (1a, 1b, 2a, 2b, 2c).

19. Demonstrate an understanding of the causes and effects of stress in the lives of peace officers by
    a. identifying the types of stress related to the law enforcement profession (1a, 1b, 2a, 2b, 2c);
    b. identifying the emotional and physical symptoms of the physiology of stress (1a, 1b, 2a, 2b, 2c);
    c. identifying common symptoms and illnesses associated with stress (1a, 1b, 2a, 2b, 2c);
    d. identifying common stressors for peace officers (1a, 1b, 2a, 2b, 2c).

20. Develop personal strategies for the positive management of stress by
    a. recognizing strategies to manage stress (1a, 1b, 2a, 2b, 2c);
    b. identifying ways to reduce stress through relaxation (1a, 1b, 2a, 2b, 2c).

CJLE 1512 - Basic Peace Officer II

General

Course Key
15482

Course Rubric
CJLE

Course Number
1512

Course Title
Basic Peace Officer II

Semester Credit Hours
5

Lecture Hours
3

Lab Hours
8

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-8) Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I and III to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Academy. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY Texas Commission on Law Enforcement (TCLEOSE)*** Required Corequisite: CJLE-1506 CJLE-1518 CJLE-1524 and CJLE-1429

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisites

10
A Requirement block where all subrequirements are required

Take CJLE-1506(15481) CJLE-1518 CJLE-1524(15113) CJLE-1429;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): CJLE 1506 CJLE 1518 CJLE 1524 and CJLE 1429

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate outcomes set forth for Texas Commission on Law Enforcement Course #1000.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the development and influence of the evolution of police service models and styles by
    a. describing significant historical events that have influenced policing in the United States (1b, 2a, 2b, 2c);
    b. describing the historical development of police service models or styles (1b, 2a, 2b, 2c);
    c. describing the evolution of policing in Texas (1b, 2a, 2b, 2c);
    d. listing the requirements of licensees under selected sections of the current commission rules (1b, 2a, 2b, 2c);
    e. explaining the traditional police service model (1b, 2a, 2b, 2c);
    f. defining community policing and explaining this service model (1b, 2a, 2b, 2c).
2. Demonstrate an understanding of the organization's role in society and police organizational issues by
    a. explaining the police organization's role in society (1b, 2a, 2b, 2c);
    b. explaining the value of providing quality police customer service (1b, 2a, 2b, 2c);
    c. describing the characteristics of traditional (formal) police organizational structure and police subculture (informal) (1b, 2a, 2b, 2c).
3. Demonstrate an understanding of the role of multiculturalism in law enforcement by
    a. discussing key concepts and origins of prejudice (1b, 2a, 2b, 2c, 2d);
    b. identifying forms of prejudice (1b, 2a, 2b, 2c, 2d);
    c. discussing personal prejudices (1b, 2a, 2b, 2c, 2d);
    d. defining key functions of discrimination (1b, 2a, 2b, 2c, 2d).
4. Demonstrate an understanding of the importance of human relations in law enforcement by
    a. discussing the importance of not allowing personal prejudices to affect professional behavior (1b, 2a, 2b, 2c, 2d);
    b. discussing the value of, respect for, and sensitivity to the feelings and needs of others (1b, 2a, 2b, 2c, 2d);
    c. discussing the public's perceptions of and attitudes toward peace officers (1b, 2a, 2b, 2c, 2d);
    d. discussing cross cultural communication and conflict resolution (1b, 2a, 2b, 2c, 2d).
5. Demonstrate effective written communication skills by
    a. writing with complete sentences (1a, 1b, 2a, 2b, 2c);
    b. demonstrating the ability to recognize sentence clarity problems and to correct them (1a, 1b, 2a, 2b, 2c);
    c. using punctuation correctly (1a, 1b, 2a, 2b, 2c).
6. Demonstrate an understanding of the importance of and the creation of effective field notes by
    a. explaining the definition and use of a field note (1a, 1b, 2a, 2b, 2c);
    b. demonstrating observation and descriptive skills (1a, 1b, 2a, 2b, 2c);
    c. listing the types of information that should be entered into the officer's field notebook (1a, 1b, 2a, 2b, 2c);
    d. listing the questions to be answered in field notes to complete a report (1a, 1b, 2a, 2b, 2c).
7. Demonstrate an understanding of the uses and essential characteristics of police reports by
    a. listing the significant uses of the police report (1a, 1b, 2a, 2b, 2c);
    b. listing the eight essential criteria of a good police report (1a, 1b, 2a, 2b, 2c);
    c. listing the common types of police reports (1a, 1b, 2a, 2b, 2c);
    d. explaining the difference between chronological and categorical ordering in report writing (1a, 1b, 2a, 2b, 2c);
    e. listing the three basic kinds of information necessary in police reports (1a, 1b, 2a, 2b, 2c);
    f. explaining the importance of separating fact from opinion in police reports (1a, 1b, 2a, 2b, 2c);
    g. identifying the statutory authority relating to confidentiality of sex offense victims (1a, 1b, 2a, 2b, 2c).
8. Demonstrate an understanding of the legal authorities pertaining to peace officers' use of force by
    a. defining the terms relating to use of force (1b, 2a, 2b, 2c);
    b. explaining the legal authorities for the use of force (1b, 2a, 2b, 2c);
    c. explaining the justification(s) for use of force (1b, 2a, 2b, 2c).
9. Demonstrate a basic understanding of the concepts regarding use of force by
    a. identifying definitions relating to use of force (1b, 2a, 2b, 2c);
    b. describing psychological aspects of the use of force (1b, 2a, 2b, 2c);
    c. identifying the deciding factors for use of force when affecting an arrest (1b, 2a, 2b, 2c);
    d. identifying circumstances which are high risks for officers (1b, 2a, 2b, 2c);
    e. identifying moral considerations and forces affecting an officer's decision to use deadly force (1b, 2a, 2b, 2c).
10. Demonstrate an understanding of various force options or alternatives available to peace officers by
    a. discussing force options available to peace officers (1b, 2a, 2b, 2c);
    b. identifying the principal considerations in applying and using force continuum (1b, 2a, 2b, 2c);
    c. discussing the impact of an officer's professional presence (1b, 2a, 2b, 2c);
    d. identifying the various aspects of communication strategies used when dealing with the public (1b, 2a, 2b, 2c);
    e. identifying elements that an officer must recognize and control in every encounter (1b, 2a, 2b, 2c);
    f. identifying some helpful tools used in redirecting someone's behavior, using verbal persuasion (1b, 2a, 2b, 2c);
    g. identifying criteria relating to a professional peace officer's use of force (1b, 2a, 2b, 2c);
    h. identifying typical procedures that are followed after an officer involved shooting (1b, 2a, 2b, 2c).
11. Demonstrate an understanding of the factors basic to unreasonable force and the possible consequences when excessive force is used by
    a. identifying the possible consequences that may arise from improper or excessive use of force (1b, 2a, 2b, 2c);
    b. identifying factors that the courts use to determine if unreasonable force was used in a case (1b, 2a, 2b, 2c).
12. Demonstrate effective interpersonal communication skills by
    a. facilitating effective communication (1a, 1b, 2a, 2b, 2c);
    b. demonstrating the ability to understand and interpret nonverbal cues (1a, 1b, 2a, 2b, 2c);
    c. demonstrating the ability to understand and interpret situations (1a, 1b, 2a, 2b, 2c);
    d. listening effectively (1a, 1b, 2a, 2b, 2c);
    e. using communication skills that assist in getting people to share information (1a, 1b, 2a, 2b, 2c);
    f. demonstrating how to fairly and respectfully handle and make requests (1a, 1b, 2a, 2b, 2c).
13. Demonstrate critical thinking and police problem solving abilities through the use of different models including the SARA and crime triangle by
    a. defining critical thinking (1a, 1b, 2a, 2b, 2c);
    b. defining community policing (1a, 1b, 2a, 2b, 2c);
    c. identifying the essential aspects of critical thinking (1a, 1b, 2a, 2b, 2c);
    d. identifying four typical reasons for errors in reasoning (1a, 1b, 2a, 2b, 2c);
    e. identifying methods of good problem solvers (1a, 1b, 2a, 2b, 2c);
    f. identifying the four steps of the SARA model (1a, 1b, 2a, 2b, 2c);
    g. explaining how the SARA model applies to the problem solving method (1a, 1b, 2a, 2b, 2c);

h. explaining the crime triangle (1a, 1b, 2a, 2b, 2c);

i. discussing how to be a problem oriented policing agency (1a, 1b, 2a, 2b, 2c);

j. participating in a group problem solving case study/activity (1a, 1b, 2a, 2b, 2c).

14. Demonstrate an understanding of the importance and methods of patrol function and preparation by

a. listing the patrol functions (1b, 2a, 2b, 2c);

b. identifying the methods of mental and physical preparation (1b, 2a, 2b, 2c);

c. identifying basic safety awareness tactics (1b, 2a, 2b, 2c).

15. Demonstrate an understanding of the hazards a peace officer may encounter when on patrol by

a. explaining the various kinds of hazards encountered while on patrol (1b, 2a, 2b, 2c).

16. Demonstrate an understanding of the various concepts and different techniques of patrol by

a. identifying the two types of problem area patrols (1b, 2a, 2b, 2c);

b. identifying the five patrol patterns (1b, 2a, 2b, 2c);

c. identifying the advantages of the six different patrol modes (1b, 2a, 2b, 2c);

d. discussing the various patrol methods (1b, 2a, 2b, 2c);

e. discussing effective observation skills (1b, 2a, 2b, 2c).

17. Demonstrate an understanding of the various concepts and techniques used when confronting pedestrians and conducting field interviews by

a. demonstrating a proper pedestrian stop (1a, 1b, 2a, 2b, 2c);

b. demonstrating techniques used while interviewing persons during field operations (1a, 1b, 2a, 2b, 2c);

c. demonstrating the use of the field inquiry (1a, 1b, 2a, 2b, 2c).

18. Demonstrate an understanding of the various concepts and techniques used to assess risk in vehicle stops and other responses to calls for service by

a. identifying the seven step violator contact method (1b, 2a, 2b, 2c);

b. identifying the procedures for high risk vehicle stops (1b, 2a, 2b, 2c);

c. identifying the procedures for safe responses to crimes in progress calls (1b, 2a, 2b, 2c);

d. listing the procedures for safe building searches (1b, 2a, 2b, 2c);

e. identifying the procedures for safe response to incidents involving bomb threats (1b, 2a, 2b, 2c);

f. explaining the procedures for the safe response to an active shooter by the first responders (1b, 2a, 2b, 2c);

g. recognizing the homicide in progress (1b, 2a, 2b, 2c);

h. identifying critical considerations in a homicide in progress (1b, 2a, 2b, 2c);

i. establishing immediate action plan tactics (1b, 2a, 2b, 2c);

j. demonstrating proper team formation of the diamond formation or linear (t) formation (1b, 2a, 2b, 2c);

k. defining crowd management (1b, 2a, 2b, 2c);

l. explaining procedures for responding to crowd control situations (1b, 2a, 2b, 2c).

19. Demonstrate the ability to maintain the peace and safeguard lives and property during situations calling for crowd management by

a. defining selected types of crowds and mobs (1b, 2a, 2b, 2c);

b. listing the elements of the offenses relevant to crowd control (1b, 2a, 2b, 2c);

c. identifying factors of responding to crowd control situations (1b, 2a, 2b, 2c).

20. Demonstrate an understanding of and appreciation for the unique opportunities available through effective public service by

a. listing the goals of public service (1b, 2a, 2b, 2c);

b. identifying the consequences of public service (1b, 2a, 2b, 2c);

c. identifying different methods designed to enhance public service (1b, 2a, 2b, 2c);

d. identifying community resources that can be used for assistance in emergencies (1b, 2a, 2b, 2c).

21. Demonstrate an understanding of the value of the crime prevention function and crime prevention activities by

a. defining the role of law enforcement in providing crime prevention services to the public (1b, 2a, 2b, 2c);

b. identifying methods to gain citizen involvement in crime prevention (1b, 2a, 2b, 2c);

c. listing the elements of a crime prevention program (1b, 2a, 2b, 2c).

22. Demonstrate an understanding of the duties and responsibilities of the officer regarding consular notification by

a. identifying the provisions of consular notification as per the Vienna Convention on Consular Notification and bilateral treaties (1b, 2a, 2b, 2c, 2d);

b. identifying the steps to be taken when a foreign national is arrested (1b, 2a, 2b, 2c, 2d);

c. identifying the purpose of the Vienna Convention on Consular Notification treaty and bilateral treaties (1b, 2a, 2b, 2c, 2d);

d. identifying the forms of access a consular official may have to an arrested foreign national (1b, 2a, 2b, 2c, 2d);

e. identifying reasons for conducting consular notification (1b, 2a, 2b, 2c, 2d);

f. using the Consular Notification and Access Handbook and the Consular Notification and Access Reference Card appropriately (1b, 2a, 2b, 2c, 2d).

23. Demonstrate an understanding of the psychological, social, and economic impact of crime on the victims by

a. identifying the elements of a crisis reaction (1b, 2a, 2b, 2c);

b. identifying phases of a victim's reaction to crime (1b, 2a, 2b, 2c);

c. discussing the ripple effect of crime victimization (1b, 2a, 2b, 2c);

d. discussing elements of crisis intervention (1b, 2a, 2b, 2c);

e. discussing the potential for secondary victimization by the criminal justice system and how to avoid it (1b, 2a, 2b, 2c);

f. identifying the elements of an appropriate death notification (1b, 2a, 2b, 2c).

24. Demonstrate an understanding of statutory responsibilities relating to victims' rights by

a. identifying the legal basis of law enforcement's responsibilities to victims' rights (1b, 2a, 2b, 2c);

b. identifying crime victim liaisons and their duties (1b, 2a, 2b, 2c);

c. summarizing legal requirement for providing victims written notice (1b, 2a, 2b, 2c);

d. explaining rights granted to victims of crime (1b, 2a, 2b, 2c);

e. identifying the value to law enforcement of effective assistance to victims (1b, 2a, 2b, 2c).

25. Demonstrate an understanding of the dynamics of family violence by

a. discussing how victims might be affected by family violence (1b, 2a, 2b, 2c);

b. identifying common characteristics of family violence offenders (1b, 2a, 2b, 2c);

c. describing the cycle of abuse phases (1b, 2a, 2b, 2c);

d. discussing examples of the types of abuse often occurring in incidences of family violence (1b, 2a, 2b, 2c);

e. listing examples of some barriers victims face when attempting to leave an abusive relationship (1b, 2a, 2b, 2c).

26. Demonstrate an understanding of the legal issues pertaining to family violence by

a. identifying offenses and statutes that refer to family violence (1b, 2a, 2b, 2c);

b. defining family violence terms related to Title 4 of the Family Code: Protective Orders and Family Violence (1b, 2a, 2b, 2c);

c. explaining the application procedure for a protective order (1b, 2a, 2b, 2c);

d. describing the protective order court hearing process (1b, 2a, 2b, 2c);

e. discussing the meaning of a protective order and the consequences of violating it (1b, 2a, 2b, 2c);

f. discussing the recommended steps in handling family violence calls involving temporary ex-parte protective orders, protective orders, and magistrate's order for emergency protection (1b, 2a, 2b, 2c).

27. Demonstrate an understanding of the legal issues pertaining to child abuse by

a. identifying the legal requirements for investigation of child abuse or neglect (1b, 2a, 2b, 2c);

b. identifying the legal requirements relating to medical treatment and medical examinations of a child (1b, 2a, 2b, 2c);

c. identifying the legal requirements for taking possession of a child in an emergency (1b, 2a, 2b, 2c);

d. identifying the legal requirements relating to communication between law enforcement authorities and school officials (1b, 2a, 2b, 2c).

28. Demonstrate an understanding of procedures for responding to family violence by

a. discussing family violence situations and procedures for conducting preliminary investigations (1b, 2a, 2b, 2c);

b. giving examples of community resources and referrals (1b, 2a, 2b, 2c).

29. Demonstrate a basic understanding and respect for the fundamental rights of and a proficiency in interacting with people with mental illness by

a. discussing the impetus for crisis intervention training and why it is so important to the law enforcement community (1b, 2a, 2b, 2c);

b. recognizing the community mindset as it relates to persons with a mental illness and their relationship with law enforcement personnel (1b, 2a, 2b, 2c);

c. explaining the paradox of crisis intervention training for the law enforcement officer (1b, 2a, 2b, 2c);

d. explaining crisis intervention's role in officer safety (1b, 2a, 2b, 2c);

e. identifying the parameters of an officer's qualification after receiving this training (1b, 2a, 2b, 2c).

30. Demonstrate sensitivity for the adversity of mental illness by

a. defining mental illness (1b, 2a, 2b, 2c);

b. listing four prominent categories of mental illness (1b, 2a, 2b, 2c);

c. listing the three most common personality disorders encountered by law enforcement officers (1b, 2a, 2b, 2c);

d. identifying prevalent behaviors associated with personality disorders (1b, 2a, 2b, 2c);

e. listing the two most common mood disorders encountered by law enforcement officers (1b, 2a, 2b, 2c);

f. identifying prevalent behaviors associated with mood disorders (1b, 2a, 2b, 2c);

g. defining anxiety disorder (1b, 2a, 2b, 2c);

h. discussing psychosis and how it relates to officer contact (1b, 2a, 2b, 2c);

i. briefly illustrating a psychotic episode from a consumer's perspective (1b, 2a, 2b, 2c);

j. explaining how substance abuse and Alzheimer's disease can relate to psychosis (1b, 2a, 2b, 2c);

k. discussing schizophrenia as it relates to psychosis (1b, 2a, 2b, 2c);

l. demonstrating the communicative approach an officer should take when confronting a person in a psychotic episode (1b, 2a, 2b, 2c);

m. discussing the two most common developmental disorders encountered by law enforcement officers (1b, 2a, 2b, 2c);

n. identifying behaviors associated with developmental disorders (1b, 2a, 2b, 2c);

31. Demonstrate a basic understanding of suicide and the evaluation of danger levels by

a. verbalizing commonly stated myths about suicide (1b, 2a, 2b, 2c);

b. discussing suicide and its relationship with mental illness (1b, 2a, 2b, 2c);

c. explaining the phrase suicide by cop (1b, 2a, 2b, 2c);

d. recording questions that will assist in evaluating an individual's current level of suicidal danger (1b, 2a, 2b, 2c);

e. discussing psychopharmacology as it relates to medications prescribed and their prominent side effects in persons with a mental illness (1b, 2a, 2b, 2c);

f. naming four categories of medications utilized in controlling the symptoms of mental illness (1b, 2a, 2b, 2c);

g. listing possible side effects with the use of psychotropic medications;

h. discussing old vs. new medications (1b, 2a, 2b, 2c);

i. identifying three primary reasons why consumers do not take their medications as prescribed (1b, 2a, 2b, 2c);

j. demonstrating crisis communication skills used with individuals with a mental illness (1b, 2a, 2b, 2c);

k. defining crisis behavior and its relevance to CIT Training (1b, 2a, 2b, 2c);

l. listing the basic strategies that are necessary when communicating in crisis situations (1b, 2a, 2b, 2c);

m. listing the components of the first three minute assessment (1b, 2a, 2b, 2c);

n. summarizing the usage of the LEAPS concept of interaction (1b, 2a, 2b, 2c);

o. demonstrating the process of modeling (1b, 2a, 2b, 2c);

p. illustrating examples of you vs. I statements verbally (1b, 2a, 2b, 2c);

q. listing barriers to active communication (1b, 2a, 2b, 2c);

r. discussing the three levels of active listening and techniques for their usage (1b, 2a, 2b, 2c);

s. demonstrating how crisis intervention techniques can be utilized in other crisis situations, such as a domestic disturbance situation (1b, 2a, 2b, 2c);

t. applying knowledge obtained in coursework to class exercises and scenarios for role play (1b, 2a, 2b, 2c);

u. demonstrating a basic understanding of the legal process, including evaluation and techniques for appropriateness of apprehension per Texas Health and Safety Code (Mental Health Code) (1b, 2a, 2b, 2c);

v. explaining the process in evaluating the appropriateness of a warrantless apprehension (1b, 2a, 2b, 2c);

w. describing the step by step process for obtaining an emergency detention order (1b, 2a, 2b, 2c);

x. explaining the criteria an officer must meet in order to take a person with a mental illness who has committed no crime into custody involuntarily for emergency mental health evaluation (1b, 2a, 2b, 2c);

y. proposing justifications in assessing proper use of force option (1b, 2a, 2b, 2c);

z. explaining an officer's limitation of liability (1b, 2a, 2b, 2c);

32. Demonstrate a basic understanding of the world of the mentally ill through discussion of legal and societal concerns and perspectives by

a. discussing the person with a mental illness in the situation of being homeless (1b, 2a, 2b, 2c);

b. discussing the individual with a mental illness as a victim of crime (1b, 2a, 2b, 2c);

c. evaluating the stigma and societal discrimination that exist toward persons who have a mental illness (1b, 2a, 2b, 2c);

d. discussing legal and societal concerns from a mental health consumer's vantage point (1b, 2a, 2b, 2c);

e. discussing the family member's perspective on mental illness (1b, 2a, 2b, 2c);

f. explaining mental health referrals/resources in the student's community (1b, 2a, 2b, 2c);

g. listing the mental health facilities in his/her area that can be utilized as a resource when encountering a subject/suspect identified as having possible mental health issues (1b, 2a, 2b, 2c);

h. investigating possible referral/treatment challenges in his/her community (1b, 2a, 2b, 2c);

i. discussing jail/court related alternatives and referrals for persons with a mental illness (1b, 2a, 2b, 2c);

j. discussing the concept of mental health courts (1b, 2a, 2b, 2c);

k. describing the State of Texas jail diversion ideal (1b, 2a, 2b, 2c);

l. listing two approaches to jail diversion (1b, 2a, 2b, 2c);

m. listing two facts associated with the jail diversion concept (1b, 2a, 2b, 2c);

n. listing the benefits of jail diversion (1b, 2a, 2b, 2c);

CJLE 1518 - Basic Peace Officer III

General

Course Key
15483

Course Rubric	Course Number	Course Title
CJLE	1518	Basic Peace Officer III
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
5	3	8

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-8) Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, IV, and V (supplement) to satisfy the Texas Commission on Law Enforcement approved Basic Peace Officer Academy. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY Texas Commission on Law Enforcement.*** Required Corequisite: CJLE-1506, CJLE-1512, CJLE-1524 and CJLE-1429

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisites

10
A Requirement block where all subrequirements are required

Take CJLE-1506 CJLE-1512 CJLE-1524 CJLE-1429;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): CJLE 1506, CJLE 1512, CJLE 1524 and CJLE 1429

Course Learning Outcomes

Course Learning Outcomes

1. End-of-Course Outcomes: Demonstrate an understanding of the Texas laws pertaining to controlled substances and of the major categories of those substances by
    a. defining the terms contained in the Texas Controlled Substances Act, Health and Safety Code (HSC) (1a, 1b, 2a, 2b, 2c);
    b. identifying the six major categories of controlled substances (1a, 1b, 2a, 2b, 2c);
    c. identifying penalty groups for manufacture, delivery, and possession of controlled substances, simulated controlled substances, controlled substance analogues, and other controlled substance offenses (1a, 1b, 2a, 2b, 2c);
    d. identifying evidentiary rules related to the investigation and prosecution of offenses involving the possession and delivery of controlled substances or simulated controlled substances (1a, 1b, 2a, 2b, 2c);
    e. identifying enhancements that may affect the punishment one receives for violating the Texas drug laws (1a, 1b, 2a, 2b, 2c);
    f. identifying the procedures to be followed in the seizure and destruction of controlled substances and related items (1a, 1b, 2a, 2b, 2c).
2. Demonstrate an understanding of Texas laws pertaining to dangerous drugs and abuseable volatile chemicals by
    a. defining terms pertaining to dangerous drugs (1a, 1b, 2a, 2b, 2c);
    b. identifying commonly abused drugs (1a, 1b, 2a, 2b, 2c);
    c. identifying the methods of drug abuse (1a, 1b, 2a, 2b, 2c);
    d. identifying the symptoms commonly associated with drug abuse (1a, 1b, 2a, 2b, 2c);
    e. identifying the penalties for possession, delivery, and manufacture of dangerous drugs, and for forging or altering a prescription (1a, 1b, 2a, 2b, 2c);
    f. discussing the use of uncorroborated testimony and its effect in drug cases (1a, 1b, 2a, 2b, 2c);
    g. identifying the procedures to be followed in the seizure and destruction of dangerous drugs (1a, 1b, 2a, 2b, 2c);
    h. identifying relevant terms relating to abuseable volatile chemicals (1a, 1b, 2a, 2b, 2c);
    i. applying the elements of following violations related to abuseable volatile chemicals (1a, 1b, 2a, 2b, 2c).
3. Demonstrate an understanding of narcotic investigation techniques and procedures by
    a. identifying the procedures for qualifying and utilizing informants in conducting investigations related to controlled substance and dangerous drug violations (1a, 1b, 2a, 2b, 2c);
    b. discussing methods for conducting surveillance of suspected drug violators (1a, 1b, 2a, 2b, 2c);
    c. identifying equipment and its importance when conducting clandestine drug investigations (1a, 1b, 2a, 2b, 2c);
    d. identifying the proper procedures and possible hazards associated with clandestine lab investigations (1a, 1b, 2a, 2b, 2c);
    e. identifying the common places of concealment of controlled substances and dangerous drugs on or in persons, places, and things (1a, 1b, 2a, 2b, 2c);
    f. discussing the incidence of drug interdiction and common characteristics of drug smugglers and their vehicles (1a, 1b, 2a, 2b, 2c);
    g. discussing appropriate interview techniques and factors contributing to probable cause in drug investigation (1a, 1b, 2a, 2b, 2c);
    h. explaining methods of identifying suspected controlled substances and dangerous drugs (1a, 1b, 2a, 2b, 2c).
4. Demonstrate an understanding of the first responder role at a hazardous materials event by
    a. defining the term hazardous material (HAZMAT) (1a, 1b, 2a, 2b, 2c);
    b. discussing the basic concepts of toxic material, infectious material, and ionizing radiation (1a, 1b, 2a, 2b, 2c);
    c. describing the potential effects of a HAZMAT incident (1a, 1b, 2a, 2b, 2c);
    d. identifying sources of onsite information about hazardous materials being transported (1a, 1b, 2a, 2b, 2c);
    e. explaining the National Incident Management System (NIMS) and Incident Command System (ICS) (1a, 1b, 2a, 2b, 2c);
    f. explaining the basic procedures for safeguarding lives at a HAZMAT event (1a, 1b, 2a, 2b, 2c);
    g. describing personal protection equipment (PPE) and decontamination (1a, 1b, 2a, 2b, 2c).
5. Demonstrate an understanding of the psychological, social, and economic impact of crime on the victims by
    a. identifying the elements of a crisis reaction (1a, 1b, 2a, 2b, 2c);
    b. identifying the phases of a victim's reaction to crime (1a, 1b, 2a, 2b, 2c);
    c. discussing the ripple effect of crime victimization (1a, 1b, 2a, 2b, 2c);
    d. discussing elements of crisis intervention (1a, 1b, 2a, 2b, 2c);
    e. discussing the potential for secondary victimization by the criminal justice system and how to avoid it (1a, 1b, 2a, 2b, 2c);
    f. identifying the elements of an appropriate death notification (1a, 1b, 2a, 2b, 2c).
6. Demonstrate an understanding of statutory responsibilities relating to victims' rights by
    a. identifying the legal basis of law enforcement's responsibilities to victims' rights (1a, 1b, 2a, 2b, 2c);
    b. identifying crime victim liaisons and their duties (1a, 1b, 2a, 2b, 2c);
    c. summarizing legal requirement for providing victims' written notices (1a, 1b, 2a, 2b, 2c);
    d. explaining rights granted to victims of crime (1a, 1b, 2a, 2b, 2c);
    e. identifying the value to law enforcement of effective assistance to victims (1a, 1b, 2a, 2b, 2c).
7. Demonstrate a working knowledge of the goals and objectives of criminal investigation by
    a. defining criminal investigation (1a, 1b, 2a, 2b, 2c);
    b. identifying the tools of the criminal investigator (1a, 1b, 2a, 2b, 2c);
    c. listing the goals of criminal investigation (1a, 1b, 2a, 2b, 2c);
    d. defining corpus delicti and discussing its significance in the criminal investigative process (1a, 1b, 2a, 2b, 2c);
    e. discussing the legal significance of evidence (1a, 1b, 2a, 2b, 2c);
    f. discussing the significance of reasonable doubt in criminal cases (1a, 1b, 2a, 2b, 2c);
    g. listing five qualifications of an investigator (1a, 1b, 2a, 2b, 2c).
8. Demonstrate a working knowledge of crimes against property and persons and characteristics of these crimes by
    a. discussing various types of property offenses and characteristics of these types of crimes (1a, 1b, 2a, 2b, 2c);
    b. identifying the characteristics of a street thief (1a, 1b, 2a, 2b, 2c);
    c. identifying what is meant by gray market vehicle (1a, 1b, 2a, 2b, 2c);
    d. explaining what a salvage switch is and how it works (1a, 1b, 2a, 2b, 2c);
    e. identifying some common problems of dealership inventory control (1a, 1b, 2a, 2b, 2c);
    f. identifying some problems with car rental agencies (civil vs. criminal violations) (1a, 1b, 2a, 2b, 2c);
    g. identifying some conditions of a vehicle that might lead an officer to suspect it to be stolen (1a, 1b, 2a, 2b, 2c);
    h. identifying some indicators that lead an officer to believe the vehicle is stolen after it has been stopped and observed (1a, 1b, 2a, 2b, 2c);
    i. describing procedures for determining whether a vehicle has been impounded or repossessed in reported auto theft cases (1a, 1b, 2a, 2b, 2c);
    j. identifying the various types of offenses against persons and the characteristics of these crimes (1a, 1b, 2a, 2b, 2c).
9. Demonstrate a working knowledge of basic preliminary investigatory procedures associated with various crimes by
    a. discussing general preliminary investigatory procedures to be followed when dealing with crimes against property (1a, 1b, 2a, 2b, 2c);
    b. discussing general preliminary investigatory procedures to be followed when dealing with crimes against persons (1a, 1b, 2a, 2b, 2c);
    c. identifying the elements of the continuing or follow up investigation (1a, 1b, 2a, 2b, 2c).
10. Demonstrate a working knowledge of forensic procedures and terminology related to homicide investigation by
    a. discussing the definition of autopsy and autopsy's value in homicide investigations (1a, 1b, 2a, 2b, 2c);
    b. discussing the significance of homicide investigation terms (1a, 1b, 2a, 2b, 2c).

11. Demonstrate a working knowledge of the laboratory and other procedures of value in the criminal investigative process by
    a. identifying typical laboratory procedures and other procedures useful in furthering criminal investigations (1a, 1b, 2a, 2b, 2c).

12. Demonstrate an understanding of and respect for the tasks required in conducting a criminal investigation by
    a. describing procedures to be taken upon arrival at the scene (1a, 1b, 2a, 2b, 2c);
    b. describing procedures for identifying the victim in case of serious injury or death (1a, 1b, 2a, 2b, 2c);
    c. identifying the available special units which may be called to the scene (1a, 1b, 2a, 2b, 2c);
    d. identifying information that should be made known to other officers (1a, 1b, 2a, 2b, 2c);
    e. discussing the legal authority to protect the crime scene and establish the perimeters (1a, 1b, 2a, 2b, 2c);
    f. describing procedures for securing the crime scene (1a, 1b, 2a, 2b, 2c).

13. Demonstrate an understanding of protecting and searching the crime scene by
    a. discussing the objectives in conducting a crime scene search (1a, 1b, 2a, 2b, 2c);
    b. identifying the potential problems in conducting a crime scene search (1a, 1b, 2a, 2b, 2c);
    c. demonstrating the selection and use of crime scene search methods (1a, 1b, 2a, 2b, 2c);
    d. describing procedures involved in implementing a crime scene search (1a, 1b, 2a, 2b, 2c);
    e. determining circumstances under which additional investigative and technical personnel should be called to conduct a crime scene search and when officers may vacate the scene (1a, 1b, 2a, 2b, 2c);
    f. identifying when evidence may and may not be used (1a, 1b, 2a, 2b, 2c);
    g. identifying the procedures to be followed in photographing a crime scene (1a, 1b, 2a, 2b, 2c);
    h. discussing the value of crime scene sketches (1a, 1b, 2a, 2b, 2c);
    i. describing the proper procedures for crime scene documentation (1a, 1b, 2a, 2b, 2c);
    j. demonstrating methods for preparing a crime scene sketch (1a, 1b, 2a, 2b, 2c);
    k. identifying types of crime scene sketches (1a, 1b, 2a, 2b, 2c);
    l. explaining chain of custody (1a, 1b, 2a, 2b, 2c);
    m. using procedures for establishing chain of custody (1a, 1b, 2a, 2b, 2c);
    n. categorizing the type of evidence to be collected for the type of offense committed (1a, 1b, 2a, 2b, 2c);
    o. demonstrating safe methods for preserving evidence in original condition (1a, 1b, 2a, 2b, 2c);
    p. applying procedures for obtaining information from victims, complainants, and witnesses (1a, 1b, 2a, 2b, 2c).

14. Demonstrate an understanding of the components of and the differences between interviewing complainants/witnesses, victims, and suspects by
    a. explaining the legal requirements for conducting interviews (1a, 1b, 2a, 2b, 2c);
    b. practicing the techniques used in conducting an interview (1a, 1b, 2a, 2b, 2c).

15. Demonstrate a basic understanding of the officer's responsibility in the booking process by
    a. listing the reasons and procedures for search during booking (1a, 1b, 2a, 2b, 2c);
    b. practicing proper manner of detailed recording and securing of prisoner's property (1a, 1b, 2a, 2b, 2c);
    c. practicing proper procedure to record all necessary booking data on a prisoner and vehicle impound information (1a, 1b, 2a, 2b, 2c);
    d. identifying the processes by which stolen and wanted information may be retrieved (1a, 1b, 2a, 2b, 2c);
    e. identifying procedures to follow when a prisoner and/or officer may have suffered bodily injury (1a, 1b, 2a, 2b, 2c);
    f. identifying results of a proper booking process (1a, 1b, 2a, 2b, 2c).

16. Demonstrate a basic understanding of how to be an effective courtroom witness by
    a. discussing the benefits of professional courtroom demeanor and appearance (1a, 1b, 2a, 2b, 2c);
    b. employing the steps used to refresh memory in preparation for testimony (1a, 1b, 2a, 2b, 2c);
    c. demonstrating proper demeanor when called to testify (1a, 1b, 2a, 2b, 2c);
    d. describing methods of court procedure (1a, 1b, 2a, 2b, 2c);
    e. using techniques for presenting effective testimony (1a, 1b, 2a, 2b, 2c);
    f. demonstrating responses to questions within the limits of known information without speculation (1a, 1b, 2a, 2b, 2c);
    g. explaining the procedure for exclusion of witnesses from the courtroom (1a, 1b, 2a, 2b, 2c);
    h. giving examples of courtroom tactics used by defense attorneys (1a, 1b, 2a, 2b, 2c);
    i. demonstrating the ability to testify effectively and to critique the testimony of others (1a, 1b, 2a, 2b, 2c).

17. Demonstrate proficiency in the case management process by
    a. describing the reasons for case management (1a, 1b, 2a, 2b, 2c);
    b. discussing the value of a properly prepared case folder (1a, 1b, 2a, 2b, 2c);
    c. preparing the type of documentary information included in a case folder and in a prosecution summary (1a, 1b, 2a, 2b, 2c);
    d. identifying the necessity of properly prepared case files (1a, 1b, 2a, 2b, 2c).

CJLE 1524 - Basic Peace Officer IV

General

Course Key
15113

Course Rubric	Course Number	Course Title
CJLE	1524	Basic Peace Officer IV
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
5	3	8

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-8) Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, III, and V (supplement) to satisfy the Texas Commission on Law Enforcement approved Basic Peace Officer Training Academy. Required Co-requisites: CJLE-1506, CJLE-1512, CJLE-1518 and CJLE-1429.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Co-requisites

10
A Requirement block where all subrequirements are required

Take CJLE-1506 CJLE-1512 CJLE-1518 CJLE-1429
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): CJLE 1506, CJLE 1512, CJLE 1518 and CJLE 1429

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate outcomes set forth for Texas Commission on Law Enforcement Course #1000. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic fitness and wellness concepts related to the ability to perform law enforcement job tasks and to maintain a high level of fitness and wellness by
    a. describing the importance and relevance of health habits, fitness, and wellness to the law enforcement profession (1b, 2a, 2b, 2c);
    b. identifying the guidelines and principles of a safe exercise program (1b, 2a, 2b, 2c);
    c. identifying the principles of an exercise program (1b, 2a, 2b, 2c);
    d. identifying FITT for thresholds of fitness training related to cardiovascular, strength, anaerobic, and flexibility training (1a, 1b, 2a, 2b, 2c);
    e. identifying the components of an exercise program (1a, 1b, 2a, 2b, 2c);
    f. identifying safety measures for fitness training (1a, 1b, 2a, 2b, 2c).
2. Demonstrate an understanding of the development and influence of the evolution of police service models and styles by
    a. describing significant historical events that have influenced policing in the United States (1a, 1b, 2a, 2b, 2c);
    b. tracing the historical development of police service models or styles (1a, 1b, 2a, 2b, 2c);
    c. explaining the evolution of policing in Texas (1a, 1b, 2a, 2b, 2c);
    d. listing the requirements of licensees under selected sections of the current Commission Rules (1a, 1b, 2a, 2b, 2c);
    e. explaining the traditional police service model (1a, 1b, 2a, 2b, 2c);
    f. explaining community policing (1a, 1b, 2a, 2b, 2c).
3. Demonstrate an understanding of the organization's role in society and police organizational issues by
    a. explaining the police organization's role in society (1a, 1b, 2a, 2b, 2c);
    b. recognizing the values of providing quality police customer service (1a, 1b, 2a, 2b, 2c);
    c. analyzing the characteristics of traditional (formal) police organizational structure and police subculture (informal) (1a, 1b, 2a, 2b, 2c).
4. Demonstrate an understanding of and respect for professionalism as it applies to law enforcement by
    a. discussing the concept of professionalism (1a, 1b, 2a, 2b, 2c);
    b. discussing the characteristics of professionalism (1a, 1b, 2a, 2b, 2c).
5. Demonstrate an understanding and acceptance of the crucial role of ethics as related to professionalism by
    a. discussing the Law Enforcement Code of Ethics (1a, 1b, 1c, 2a, 2b, 2c);
    b. discussing ethical dilemmas in law enforcement (1a, 1b, 1c, 2a, 2b, 2c);
    c. discussing the differences between physical and moral courage (1a, 1b, 1c, 2a, 2b, 2c).
6. Demonstrate an understanding of the civil and criminal laws related to unethical behavior of peace officers by
    a. discussing Title 8 of the Texas Penal Code in relationship to an officer's behavior (1a, 1b, 2a, 2b, 2c);
    b. explaining relevant federal criminal law in relationship to an officer's behavior (1a, 1b, 2a, 2b, 2c);
    c. listing civil penalties for sexual harassment and inappropriate officer conduct (1a, 1b, 2a, 2b, 2c).
7. Demonstrate an understanding of and respect for the U.S. Constitution and Bill of Rights as they pertain to the role of peace officers and the rights of citizens by
    a. explaining the basis of the U.S. Constitution and Bill of Rights with special emphasis on the freedom of the individual and human rights (1a, 1b, 2a, 2b, 2c);
    b. defining Writ of Habeas Corpus (1a, 1b, 2a, 2b, 2c);
    c. explaining the main concepts of Article 2 and Article 3 of the Constitution (1a, 1b, 2a, 2b, 2c);
    d. explaining the rights enumerated in Constitutional Amendments I, IV, V, VI, VIII, IX, X, and XIV (1a, 1b, 2a, 2b, 2c);
    e. analyzing personal and organizational values relative to police role in relation to the Constitution and Bill of Rights (1a, 1b, 2a, 2b, 2c).
8. Demonstrate an understanding of and respect for the Texas Constitution and Bill of Rights as they pertain to the role of peace officers and the rights of citizens by
    a. explaining an individual's rights proclaimed under Article 1 of the Constitution of the State of Texas (1a, 1b, 2a, 2b, 2c);
    b. defending an individual's rights proclaimed under Article 1 of the Constitution of the State of Texas (1a, 1b, 2a, 2b, 2c);
    c. explaining Article 17 of the State Constitution as it relates to the ever evolving nature of the document (1a, 1b, 2a, 2b, 2c).
9. Demonstrate an understanding of the specific roles and interrelationships of the various components within the criminal justice system by
    a. explaining the structure and role of the criminal justice system (1a, 1b, 2a, 2b, 2c);
    b. explaining how the three components of the criminal justice system directly affect each other (1a, 1b, 2a, 2b, 2c);
    c. identifying the differences between civil and criminal law (1a, 1b, 2a, 2b, 2c);
    d. explaining the civil/criminal courts and their jurisdiction (1a, 1b, 2a, 2b, 2c).
10. Demonstrate an understanding of the statutory authority for administration of criminal procedure as enumerated by the Texas Code of Criminal Procedure (CCP) by
    a. identifying the basis for administration of criminal procedure in Texas (1a, 1b, 2a, 2b, 2c);
    b. identifying the basic rights enumerated in the CCP (1a, 1b, 2a, 2b, 2c).
11. Demonstrate an understanding of the general duties and responsibilities of officers as enumerated by the CCP by
    a. identifying magistrates and their duties (1a, 1b, 2a, 2b, 2c);
    b. identifying peace officers (1a, 2c);
    c. listing the duties of peace officers (1a, 1b, 2a, 2b, 2c);
    d. listing the duties of peace officers relating to racial profiling (1a, 1b, 2a, 2b, 2c);
    e. listing the duties of peace officers relating to forfeiture of contraband (1a, 1b, 2a, 2b, 2c).
12. Demonstrate an understanding of the courts and their criminal jurisdiction by
    a. identifying courts which have criminal jurisdiction (1a, 1b, 2a, 2b, 2c);
    b. identifying the jurisdiction of the courts of appeals (1a, 1b, 2a, 2b, 2c);
    c. identifying the jurisdiction of the court of criminal appeals (1a, 1b, 2a, 2b, 2c);
    d. identifying the jurisdiction of district courts (1a, 1b, 2a, 2b, 2c);
    e. identifying the jurisdiction of the county courts (1a, 1b, 2a, 2b, 2c);
    f. identifying the jurisdiction of the justice courts (1a, 1b, 2a, 2b, 2c);
    g. identifying the jurisdiction of municipal courts (1a, 1b, 2a, 2b, 2c).
13. Demonstrate an understanding of the procedures to be followed in the prevention and suppression of offenses by
    a. listing the duties of officers relating to family violence prevention (1a, 1b, 2a, 2b, 2c);
    b. listing the duties of officers relating to threats of injury or death to persons or damage to property (1a, 1b, 2a, 2b, 2c);
    c. listing the duties of officers relating to suppression of riots and other disturbances (1a, 1b, 2a, 2b, 2c);
    d. listing the duties of officers relating to protective orders for victims of sexual assault (1a, 1b, 2a, 2b, 2c).
14. Demonstrate an understanding of the time limitations relating to felonies and misdemeanors by
    a. identifying the time limitations relating to felony offenses (1a, 1b, 2a, 2b, 2c);
    b. identifying the time limitations relating to misdemeanor offenses (1a, 1b, 2a, 2b, 2c);
    c. identifying the time limitations relating to aggravated offenses, attempt, conspiracy, solicitation, and organized criminal activity (1a, 1b, 2a, 2b, 2c).

15. Demonstrate an understanding of court processes as they relate to criminal offenses by
    a. explaining court papers relating to offenses (1a, 1b, 2a, 2b, 2c);
    b. explaining court papers relating to witnesses (1a, 1b, 2a, 2b, 2c);
    c. explaining the bail procedure (1a, 1b, 2a, 2b, 2c).
16. Demonstrate an understanding of the process relating to inquests upon dead bodies by
    a. identifying requirements for an inquest (1a, 1b, 2a, 2b, 2c).
17. Demonstrate an understanding of the process relating to the sex offender registration program by
    a. identifying requirements for sex offenders (1a, 1b, 2a, 2b, 2c).
18. Identify the elements of offenses in the Texas Penal Code by
    a. explaining the organization of the PC (1a, 2c);
    b. explaining the general provisions of the PC (1a, 2c);
    c. describing the proof required to convict a person of an offense (1a, 1b, 2a, 2b, 2c);
    d. defining terms as they relate to multiple prosecutions (1a, 1b, 2a, 2b, 2c);
    e. explaining the general principles of criminal responsibility (Title 2) of the penal code (1a, 1b, 2a, 2b, 2c);
    f. explaining the culpable mental states (1a, 1b, 2a, 2b, 2c);
    g. identifying when one person is criminally responsible for conduct of another (1a, 1b, 2a, 2b, 2c);
    h. identifying general defenses to criminal responsibility (1a, 1b, 2a, 2b, 2c);
    i. explaining the punishments (Title 3) of the penal code (1a, 1b, 2a, 2b, 2c);
    j. applying the elements of offenses for all offenses (1a, 1b, 2a, 2b, 2c).
19. Demonstrate an understanding of the causes and effects of stress in the lives of peace officers by
    a. identifying the types of stress related to the law enforcement profession (1a, 1b, 2a, 2b, 2c);
    b. identifying the emotional and physical symptoms of the physiology of stress (1a, 1b, 2a, 2b, 2c);
    c. identifying common symptoms and illnesses associated with stress (1a, 1b, 2a, 2b, 2c);
    d. identifying common stressors for peace officers (1a, 1b, 2a, 2b, 2c).
20. Develop personal strategies for the positive management of stress by
    a. recognizing strategies to manage stress (1a, 1b, 2a, 2b, 2c);
    b. identifying ways to reduce stress through relaxation (1a, 1b, 2a, 2b, 2c).

CJSA 1330 - Cybercrimes

General

Course Key
15884

Course Rubric	Course Number	Course Title
CJSA	1330	Cybercrimes

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An introduction to cybercrime. Topics include specific laws, investigative techniques, and criminological theories applicable to computer crime.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CJSA 1347 - Police Organization & Administration

General

Course Key
6232

Course Rubric	Course Number	Course Title
CJSA	1347	Police Organization and Administration

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Study of the principles of organizational structure and administration. Topics include theories of management, motivation, and leadership. Focus on a quality approach toward police community interaction.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify principles of organization, administration, management, motivation, and leadership; and describe the quality approach to community relations. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the law enforcement component of criminal justice by
    a. distinguishing between supervision and management (1a, 1b, 2c);
    b. defining community policing (1a, 1b, 2c);
    c. identifying the elements of effective supervision (1a, 1b, 2c);
    d. identifying discipline strategies (1a, 1b, 2c).
2. Demonstrate an understanding of leadership and its value in criminal justice by
    a. defining leadership (1a, 1b, 2c);
    b. identifying the process and necessary skills of leadership (1a, 1b, 2c);
    c. identifying major theories of leadership (1a, 1b, 2c);
    d. defining time management (1a, 1b, 2a, 2b, 2c);
    e. developing strategic planning strategies for time management enhancement (1a, 1b, 2a, 2b, 2c).
3. Conduct independent research on issues related to criminal justice by
    a. identifying pertinent and legitimate resources (1a, 1b, 2a, 2b, 2c);
    b. synthesizing research and knowledge gained (1a, 1b, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2c).
4. Demonstrate an understanding of effective communication and its impact on the field of criminal justice by
    a. identifying effective communication strategies (1a, 1b, 2b, 2c);
    b. identifying problem solving models (1a, 1b, 2a, 2b, 2c);
    c. identifying verbal and nonverbal communication cues (1a, 1b, 2a, 2b, 2c).

CJSA 1348 - Ethics in Criminal Justice

General

Course Key
456

Course Rubric	Course Number	Course Title
CJSA	1348	Ethics in Criminal Justice

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Ethical philosophies and issues pertaining to the various professions in the criminal justice system. Includes ethical issues emanating from constitutional conflict with public protection and individual rights, civil liberties, and correctional policies.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify principles of organization, administration, management, motivation, and leadership; and describe the quality approach to community relations. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the law enforcement component of criminal justice by
    a. distinguishing between supervision and management (1a, 1b, 2c);
    b. defining community policing (1a, 1b, 2c);
    c. identifying the elements of effective supervision (1a, 1b, 2c);
    d. identifying discipline strategies (1a, 1b, 2c).
2. Demonstrate an understanding of leadership and its value in criminal justice by
    a. defining leadership (1a, 1b, 2c);
    b. identifying the process and necessary skills of leadership (1a, 1b, 2c);
    c. identifying major theories of leadership (1a, 1b, 2c);
    d. defining time management (1a, 1b, 2a, 2b, 2c);
    e. developing strategic planning strategies for time management enhancement (1a, 1b, 2a, 2b, 2c).
3. Conduct independent research on issues related to criminal justice by
    a. identifying pertinent and legitimate resources (1a, 1b, 2a, 2b, 2c);
    b. synthesizing research and knowledge gained (1a, 1b, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2c).
4. Demonstrate an understanding of effective communication and its impact on the field of criminal justice by
    a. identifying effective communication strategies (1a, 1b, 2b, 2c);
    b. identifying problem solving models (1a, 1b, 2a, 2b, 2c);
    c. identifying verbal and nonverbal communication cues (1a, 1b, 2a, 2b, 2c);
    d. explaining the importance of communication in law enforcement (1a, 1b, 2a, 2b, 2c).

CJSA 2331 - Child Abuse: Prevention & Investigation

General

Course Key
549

Course Rubric	Course Number	Course Title
CJSA	2331	Child Abuse: Prevention and Investigation

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Forms of child abuse and neglect and the traits of typical abusers. Includes strategies to investigate abuse, interview victims and witnesses, document evidence in accordance with state law, and conduct case studies.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify forms of abuse and neglect; compare and contrast characteristics of typical abusers; and outline investigative strategies. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the dynamics of child abuse by
    a. defining child abuse and neglect (1a, 1b, 2c);
    b. identifying types of child abuse and neglect (1a, 1b, 2c);
    c. identifying the role of the offender, non-offending parent, and child victim (1a, 1b, 2c).
2. Demonstrate an understanding of the social problems related to child abuse and neglect by
    a. assessing the role of treatment (1a, 1b, 2c);
    b. identifying the risk assessment factors in child abuse/neglect cases (1a, 1b, 2c);
    c. identifying trends in society as they pertain to issues of child abuse/neglect (1a, 1b, 2c).
3. Demonstrate the ability to conduct independent research on issues related to child abuse/neglect by
    a. identifying pertinent scholarly resources (1a, 1b, 2a, 2c);
    b. synthesizing research and knowledge gained (1a, 1b, 2a, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2c).
4. Demonstrate an understanding of the state law in accordance with child abuse/neglect by
    a. analyzing case studies (1a, 1b, 2b, 2c);
    b. determining what cases are child abuse/neglect cases (1a, 1b, 2b, 2c);
    c. identifying the law relevant to child abuse cases (1a, 1b, 2b, 2c);
    d. applying the law to child abuse cases (1a, 1b, 2b, 2c);
    e. preparing written documented reports of child abuse/neglect cases (1a, 1b, 2c);
    f. locating community resources to aid families dealing with child abuse/neglect issues (1a, 1b, 2a, 2b, 2c).

CJSA 2334 - Contemporary Issues in Criminal Justice

General

Course Key
555

Course Rubric	Course Number	Course Title
CJSA	2334	Contemporary Issues in Criminal Justice
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A series of lectures and class participation exercises presenting selected topics currently confronting criminal justice personnel and the public they serve. (Capstone Course - Must be taken during the last semester of the program.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explore an assigned contemporary topic in criminal justice; list specific problems within the topic and suggest solutions. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the dynamic nature of criminal justice issues, the criminal justice system, and the need to stay current and informed of the ever-changing environment as a team member by
    a. reviewing case studies (1a, 1b, 2b, 2c);
    b. analyzing the nature of current issues (1a, 1b, 2b, 2c);
    c. explaining the rationale for developing research based skills and abilities (1a, 1b, 2c);
    d. explaining the need for critical reading and thinking as issues are analyzed (1a, 1b);
    e. participating in discussion and debate (1a, 1b, 2c).
2. Demonstrate an understanding of systems thinking and its value in criminal justice as a member of a team in a workplace simulation by
    a. reviewing case studies (1a, 1b, 2b, 2c);
    b. assessing the role the system or system thinking played in the scenario (1a, 1b, 2b, 2c);
    c. explaining the value of systems thinking as it relates to being proactive (1a, 1b, 2b, 2c);
    d. determining whether the presence or absence of systems philosophy affected the outcomes associated with the case study or problem (1a, 1b, 2b, 2c).
3. Conduct independent research on issues related to criminal justice by
    a. identifying pertinent and legitimate resources (1a, 1b, 2a, 2c);
    b. synthesizing research and knowledge gained (1a, 1b, 2b, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2c);
    d. delivering the reports in a simulated work environment (1a, 1b, 2c).
4. Demonstrate an understanding of effective recruitment and selection strategies in the field of criminal justice as a member of a workplace simulation team by
    a. reviewing case studies (1a, 1b, 2a, 2c);
    b. determining why human resources affect criminal justice as a system and as a profession (1a, 1b, 2a, 2c);
    c. identifying strengths and weakness of current recruitment and selection systems (1a, 1b, 2a, 2c);
    d. preparing strategies for recruitment and selection (1a, 1b, 2a, 2c);
    e. analyzing employment trends in criminal justice (1a, 1b, 2a, 2c).

CJSA 2388 - Internship-Criminal Justice Studies

General

Course Key
563

Course Rubric	Course Number	Course Title
CJSA	2388	Internship in Criminal Justice and Safety Studies
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	0	9

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-9) A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the dynamic nature of criminal justice issues and the need to stay current and informed about the ever changing environment as a member of a team by
    a. providing practical perspectives on the academic concepts and theories studied in the classroom (1a, 1b, 2c);
    b. locating an organization linked to the criminal justice field and modeling him/herself as an employee (1a, 1b, 2c);
    c. demonstrating an understanding of system thinking in the workforce (1a, 1b, 2c).
2. Demonstrate the ability to conduct research and analysis on issues within the workforce by
    a. identifying problems and solutions (1a, 1b, 2c);
    b. documenting experiences in a journal (1a, 1b, 2c);
    c. preparing written and oral reports based on the information obtained from the experience (1a, 1b, 2c);
    d. delivering the report in both oral and written format (1a, 1b, 2c).

CNBT 1110 - Basic Construction Safety

General

Course Key
10515

Course Rubric	Course Number	Course Title
CNBT	1110	Basic Construction Safety

Semester Credit Hours	Lecture Hours	Lab Hours
1	1	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0) Basic job site construction safety in residential, commercial, and industrial construction.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define terms used in construction safety; discuss local, state, and national standards of safety on the job site; list and describe the common hazardous materials and processes; and develop a tool box talk for the job site. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the basic types of occupational safety hazards associated with the construction industry by
    a. explaining the different types of occupational safety hazards (1a);
    b. recognizing, evaluating, and controlling occupational safety hazards as they relate to OSHA (1b).
2. Study and explore various information regarding workers' rights, employer responsibilities, and filing a complaint by
    a. identifying the employee's responsibilities and roles in the work area regarding safety procedures (1a, 1b);
    b. identifying the employer's responsibilities and roles in the work area regarding safety procedures (1a);
    c. identifying the procedure for filing a complaint (1a, 1b).
3. Demonstrate understanding of a working knowledge of construction safety, improve communication skills, and promote a sense of civic duty and responsibility with high moral and ethical standards by
    a. communicating to other employees the safety precautions and procedures (1a);
    b. identifying the various ethical and moral standards as they relate to safety and the welfare of others (1b).
4. Demonstrate understanding of and describe site safety measures relating to construction operation and use of equipment and gain knowledge of work ethics by
    a. knowing OSHA and its importance (1a, 1b);
    b. understanding the responsibilities of the workers (1b, 2b).
5. Demonstrate understanding of about the various careers, overview, and future of the construction industry by
    a. recognizing the different types of construction industry sectors (1a, 1b);
    b. explaining construction ethics, technology, and opportunities (1a, 2e).

CNBT 1300 - Residential/Light Comm Cons Drawings

General

Course Key
14579

Course Rubric	Course Number	Course Title
CNBT	1300	Residential and Light Commercial Construction Drawings

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to construction drawings with a focus on residential and light commercial construction.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify construction drawing symbols and abbreviations; interpret a set of construction drawings; and correlate elevations, sections, details, plan views, schedules, general notes, and use of architectural and engineering scales. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic types of construction blueprints by:
    a. explaining why drawings are important in the construction industry;
    b. identifying what is included in a set of construction drawings;
    c. describing how drawings and prints are made;
    d. explaining the advantages of computer aided design and drafting.
2. Demonstrate an understanding of construction math and its application by:
    a. converting measurements both in English and metric system;
    b. calculating numbers in fractions;
    c. calculating areas and volumes of objects;
    d. relating math to construction applications.
3. Demonstrate an understanding of different measuring tools commonly used in the construction industry by:
    a. reading both customary and metric rulers and tapes;
    b. explaining the commonly used drawing scales.
4. Demonstrate an understanding of commonly used lines and symbols in construction drawings by:
    a. defining the different plan symbols and abbreviations;
    b. identifying features from different lines;
    c. describing drawing symbols and their meanings;
    d. identifying material drawing renderings and fills with their indicated symbols on the drawing.
5. Demonstrate an understanding of pictorial drawings by:
    a. explaining the basic concepts of perspective drawing;
    b. sketching isometric and oblique drawings;
    c. drawing objects and structures using one and two point perspective.
6. Demonstrate an understanding of orthographic drawings by:
    a. visualizing orthographic objects and structures;
    b. creating orthographic sketches;
    c. identifying different types of orthographic drawings.
7. Demonstrate the ability to use engineer and architectural scales and read dimensioned drawings by:
    a. scaling dimension from a print;
    b. reading dimension on a print;
    c. performing basic math regarding dimensions;
    d. identifying items that should be dimensioned on different drawing types.
8. Demonstrate an understanding of the CSI Master Format and ASTM Uni-format of specification by:
    a. explaining items that are included in the project specification;
    b. explaining the importance of specification;
    c. presenting a particular topic within specification.

9. Demonstrate an understanding of the different types of construction materials and their specific uses by:
    a. identifying various basic construction materials;
    b. identifying the components of concrete;
    c. explaining the different concrete construction methods;
    d. describing the different types of masonry units (bricks, blocks, stone, etc.);
    e. classifying wood as hardwood or softwood;
    f. recognizing different structural metal and steel shapes;
    g. describing various types of glass, plastic, and insulation;
    h. identifying symbols representing materials on drawings.

10. Demonstrate skill at dealing with plot plans by:
    a. recognizing common features of a plot plan;
    b. identifying property line description;
    c. explaining the difference between true north and plan north;
    d. reading contour elevation lines on a topography plan.

11. Demonstrate an understanding of foundation prints by:
    a. distinguishing the various types of soils and their importance in construction;
    b. identifying the different methods and requirements of site preparation as reflected in grading plans;
    c. identifying footings on a foundation plan;
    d. identifying various components of a foundation system.

12. Demonstrate an understanding of residential and commercial framing systems by:
    a. identifying the differences between heavy and light framing;
    b. recognizing the components of various framing systems;
    c. explaining concrete reinforcing notation;
    d. reading beam and column schedules;
    e. identifying various structural steel members;
    f. explaining stair details and terms.

13. Demonstrate an understanding of plumbing, mechanical, and electrical prints by:
    a. identifying various piping systems and plumbing fixture symbols;
    b. explaining HVAC systems and types of heating and cooling systems and symbols;
    c. identifying electrical symbols and terms.

14. Demonstrate an understanding of site safety measures relating to construction operation and use of equipment as well as gain knowledge of work ethics by:
    a. explaining OSHA and its importance;
    b. explaining the responsibilities of the workers.

15. Demonstrate an understanding of the various careers available and an overview and future of the construction industry by:
    a. recognizing the different types of construction industry sectors;
    b. explaining construction ethics, technology, and opportunities.

CNBT 1302 - Mech/Plumb/Elect System Construction I

General

Course Key
10516

Course Rubric	Course Number	Course Title
CNBT	1302	Mechanical, Electrical & Plumbing Systems in Construction I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A presentation of the basic mechanical, electrical, and plumbing components in construction and their relationship to residential and light commercial buildings.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify equipment and components of heating, air conditioning, and ventilation, electrical, and plumbing systems; and describe the relationships between the mechanical, electrical, and plumbing systems; and discuss implications of sustainable building systems. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of an introduction to building mechanical, plumbing, and electrical design by
    a. explaining the elementary engineering concepts and design principles of electrical design (1a, 1b);
    b. explaining the elementary engineering concepts and design principles of mechanical and plumbing design (1a, 1b);
    c. defining the different electrical, mechanical, and plumbing vocabulary terms (1a, 1b);
    d. identifying the codes that govern electrical, mechanical, and plumbing systems for residential and commercial building (1a, 1b).

2. Demonstrate understanding of the fundamental concept of electrical and mechanical calculation by
    a. calculating power, voltage, current, and resistance as applied to residential and commercial buildings (1a, 1b, 2a, 2b);
    b. calculating mechanical problems (1a, 1b, 2a, 2b).

3. Demonstrate understanding of the growing complexity of design standards and regulations and rapid changes in new building technologies as related to electrical, mechanical, and plumbing systems by
    a. identifying the roles of the construction parties involved (1a, 1b);
    b. identifying the roles of architectural and engineering technicians I (1a, 1b).

4. Demonstrate understanding of and describe the step by step approach to the design of each system by
    a. identifying the various requirements in the design process of an electrical system (1a, 1b);
    b. identifying the various requirements in the design process of a mechanical system (1a, 1b);
    c. identifying the various requirements in the design process of a plumbing system (1a, 1b).

5. Demonstrate understanding of the equipment and components of electrical, plumbing, heating, air conditioning, and ventilation systems by
    a. describing the relationship between mechanical, plumbing, and electrical systems (1a, 1b);
    b. discussing implications of a sustainable building system on design (1a, 1b);
    c. learning load calculations for an electrical design project (1a, 1b, 2a, 2b);
    d. explaining jobsite inspection process (1a, 1b).

CNBT 1311 - Construction Methods and Materials I

General

Course Key
11756

Course Rubric	Course Number	Course Title
CNBT	1311	Construction Methods and Material I
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Introduction to construction materials and methods and their applications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify construction materials; list their applications; and describe the various methods of construction. Explain the development and use of new materials being introduced to the construction industry under sustainable building standards. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of an overview of the construction delivery process by
    a. identifying and explaining the different project delivery processes and stages (1a, 1b);
    b. explaining the principles of the bidding process (1a, 1b);
    c. identifying the roles of the project team player (1a, 1b);
    d. identifying the content of construction documents (1a, 1b);
    e. understanding and applying the various codes and standards (1a, 1b, 2c).
2. Demonstrate an understanding of the principles of sustainable construction by
    a. discussing practices and fundamentals of sustainable construction (1a, 1b);
    b. identifying construction materials that are from rapidly renewable resources (1a, 1b);
    c. defining concepts of eco-labeling of building (1a, 1b);
    d. recognizing the different characteristics of green building products (1a, 1b, 2c);
3. Demonstrate an understanding of wood materials for light and heavy construction by
    a. differentiating wood, timber, and lumber (1a, 1b);
    b. defining and identifying softwood and hardwood classification (1a, 1b);
    c. recognizing manufactured wood products (1a, 1b);
    d. identifying different accessories associated with wood construction (1a, 1b).
4. Demonstrate an understanding of metals as materials for construction by
    a. differentiating forms of metals and their manufacturing process (1a, 1b);
    b. distinguishing different structural steel shapes and light-gauge metal (1a, 1b);
    c. recognizing the different components of wall, ceiling, flooring, and roofing metal system (1a, 1b);
    d. labeling steel detailing and fabrication (1b, 2c);
    e. explaining corrosion protection (1a, 1b).
5. Demonstrate an understanding of reinforced concrete construction materials by
    a. differentiating between lime, pc, and concrete (1a, 1b);
    b. defining and explaining the process of hydration (1a, 1b, 1c);
    c. identifying the different concrete curing processes (1a, 1b);
    d. explaining the various alternative materials for Portland cement (1a, 1b);
    e. describing the physical and mechanical properties of concrete (1a, 1b);
    f. distinguishing various grades of cement and reinforcing bars (1a, 1b);
    g. placing and erecting concrete (1a, 1b, 1c, 2b);
    h. explaining the methods and process of preparing concrete formworks for foundation, beams, slabs, and columns (1a, 1b);
    i. differentiating cast-in-place concrete and precast concrete (1a, 1b).
6. Demonstrate an understanding of masonry as construction materials by
    a. identifying the different masonry materials and their application (1a, 1b);
    b. differentiating types of masonry mortars (1a, 1b);
    c. differentiating the different types of brick masonry wall construction, patterns, and orientation (1a, 1b);
    d. identifying the various materials, accessories, and components associated with masonry construction (1a, 1b).
7. Demonstrate an understanding of the various types of soils and foundation systems by
    a. identifying the different classifications of soils (1a, 1b);
    b. identifying the different classifications of excavation (1a, 1b);
    c. identifying the different types of foundations (1a, 1b);
    d. explaining and applying safety practices (1a, 1b).

CNBT 1342 - Building Codes and Inspections

General

Course Key
6887

Course Rubric	Course Number	Course Title
CNBT	1342	Building Codes and Inspections
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Building codes and standards applicable to building construction and inspection processes.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify various construction classifications and occupancy categories; cross reference the guidelines, tables, charts, and specifications as presented in the building codes; and determine if construction meets building codes. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic concepts of the laws and regulations governing the building industry by
    a. explaining local, state, regional, and national code requirements in building construction (1a, 1b, 1c);
    b. explaining the different regulations that govern the building industry (1a, 1b);
    c. identifying the different professional choices of designers and contractors (1a, 1b);
    d. explaining construction law, safety, and ethical values concerning green technology (1a, 1b).
2. Demonstrate an understanding of a variety of construction contract agreements by
    a. defining the different types of contract agreements (1a, 1b);
    b. explaining the roles and responsibilities of the contract parties involved (1a, 1b, 2b, 2d);
    c. explaining the different parts of the contract agreement (1a, 1b);
    d. discussing insurance coverage and requirements of the parties involved (1a, 1b).
3. Execute a code review of a building project by
    a. explaining the code review process (1a, 1b);
    b. interpreting codes in construction drawings and specifications (1a, 1b, 2c);
    c. preparing a summary report of the code review (1a, 1b, 2a, 2b, 2c);
    d. administering the contract agreement for construction (1a, 1b, 2b, 2c, 2d).
4. Demonstrate an understanding of the process of writing specifications by
    a. explaining the importance of the specifications in the contract (1a, 1b);
    b. explaining the proper sequence and organization in preparing a specification (1a, 1b, 2c);
    c. explaining the contents of the project manual and their formats (1a, 1b, 2c);
    d. preparing a specification for residential and commercial projects (1a, 1b, 2c).
5. Demonstrate an understanding of green building requirements, codes, and ethical values by
    a. explaining the importance of sustainability (1a, 1b);
    b. incorporating green knowledge in the design and construction process (1a, 1b, 2c).

CNBT 1344 - Construction Materials Testing

General

Course Key
8341

Course Rubric
CNBT

Course Number
1344

Course Title
Construction Materials Testing

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Laboratory testing and field inspection procedures associated with construction materials.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform materials testing procedures; demonstrate the use of testing equipment; perform inspection procedures; and prepare test samples. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of different compositions of soil by
    a. distinguishing between different classifications of rocks (1a, 1b);
    b. discussing cohesive and cohesion-less soils (1a, 1b);
    c. discussing Atterberg limits (1a, 1b);
    d. explaining soil classification systems (1a, 1b).
2. Demonstrate an understanding of the effects of frost and freezing on soils by
    a. discussing soil strength and improvement (1a, 1b);
    b. identifying the effects of frost and freezing on structures (1a, 1b).
3. Demonstrate an understanding of the different classifications of aggregates by
    a. explaining fine and coarse aggregates (1a, 1b);
    b. understanding the use of aggregates in cement (1a, 1b);
    c. calculating the required fineness modulus of aggregates (1a, 1b).
4. Demonstrate an understanding of different types of cement by
    a. describing non-hydraulic cements (1a, 1b);
    b. describing Portland cement (1a, 1b);
    c. identifying characteristics of concrete (1a, 1b);
    d. producing concrete specimens for testing and evaluation (1a, 1b, 2a, 2e).
5. Demonstrate an understanding of the different types of woods by
    a. differentiating between early and late wood (1a, 1b);
    b. explaining the relationship of wood's moisture content and its strength (1a, 1b).
6. Demonstrate an understanding of the different uses of asphalt cements by
    a. identifying the different components of asphalt (1a, 1b);
    b. describing the different methods used in asphalt (1a, 1b).
7. Differentiate between ferrous and nonferrous metals by
    a. discussing manufacturing of steel (1a, 1b);
    b. explaining the use of heat treated metals (1a, 1b);
    c. explaining the process of heat treating (1a, 1b);
    d. performing laboratory testing for tension of ferrous and nonferrous metals (1a, 1b, 1c, 2c, 2e).
8. Demonstrate an understanding of the physical and mechanical properties of traditional construction materials and green building materials by
    a. performing laboratory testing for the physical and mechanical properties of traditional and green building construction materials (1a, 1b, 2a, 2b, 2c, 2e);
    b. explaining procedures of enhancing properties of traditional and green building materials (1a, 1b, 1c, 2c).

CNBT 1346 - Construction Estimating I

General

Course Key
572

Course Rubric
CNBT

Course Number
1346

Course Title
Construction Estimating I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Fundamentals of estimating materials, equipment, and labor costs in construction. Required Corequisite: CNBT-1300

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for co-requisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

Take CNBT-1300;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): CNBT 1300

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain estimating procedures; estimate materials from contract documents; and calculate labor units and costs. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of construction projects and the bidding process by
    a. identifying the different types of construction projects (1a, 1b);
    b. differentiating the characteristics of different construction projects (1a, 1b);
    c. defining the bidding process (1a, 1b);
    d. explaining the procedures involved in the bidding process (1a, 1b, 2c);
    e. explaining the different bidding methods (1a, 1b).
2. Demonstrate the ability to interpret construction plans and specifications in construction documents by
    a. distinguishing between construction plans and specifications (1a, 1b);
    b. explaining the importance of construction plans and specifications (1a, 1b);
    c. explaining the relationship of the construction plans and specifications (1a, 1b, 2c);
    d. identifying the direct cost and indirect cost of a construction project (1a, 1b).
3. Demonstrate an understanding of the different types of estimates by
    a. defining estimating, estimator, and estimate (1a, 1b);
    b. differentiating the different types of estimates (1a, 1b);
    c. explaining the uses of the different types of estimates (1a, 1b);
    d. comparing the degree of accuracy of each type of estimate (1a, 1b, 2c).
4. Demonstrate an understanding of determining unit of measurements in estimating by
    a. identifying the different unit of measurements in estimating (1a, 1b);
    b. applying the appropriate units to the different measurements involved in estimating (1a, 1b, 2a, 2c);
    c. choosing the appropriate unit to be applied for each type of estimate (1a, 1b).
5. Demonstrate the ability to perform quantity takeoff for earthwork and site works by
    a. explaining the different factors that affect quantification of site works (1a, 1b);
    b. differentiating the two methods of quantifying earthworks (1a, 1b);
    c. applying the formula for determining volume of soil excavation (1a, 1b);
    d. performing quantifying earth volumes using the different methods in a real world construction project (1a, 1b, 1c, 2c).
6. Demonstrate an understanding of the different methods of determining labor and equipment costs by
    a. explaining how labor estimates are a direct correlation of the material takeoff (1a, 1b);
    b. determining labor work hours based on productivity rates (1a, 1b);
    c. differentiating the direct and indirect cost of equipment (1a, 1b).

7. Perform quantification of the amount of concrete and reinforcement used for foundation, walls, and other structural members by
    a. identifying the unit of measurement used in concrete (1a, 1b);
    b. applying the formula for determining volume of concrete (1a, 1b);
    c. quantifying reinforcement needed for foundation, walls, slabs, columns, and beams (1a, 1b, 1c, 2c);
    d. applying the principles learned to quantify concrete in a real world construction project (1a, 1b, 1c, 2c).

8. Perform quantification of masonry units and related accessories for masonry construction by
    a. identifying the unit of measurement used in masonry (1a, 1b);
    b. applying the formula for determining quantity of masonry (1a, 1b);
    c. applying the principles learned to quantify concrete in a real world construction project (1a, 1b, 1c, 2c).

9. Demonstrate an understanding of wood, timber, and lumber and quantification of wood materials by
    a. differentiating wood, timber, and lumber (1a, 1b);
    b. quantifying the amount of lumber in foot board measure for studs, joists, rafters, and other structural members (1a, 1b);
    c. identifying woods that are considered softwoods and hardwoods (1a, 1b);
    d. quantifying lumber materials used in an actual construction project (1a, 1b, 1c, 2c).

10. Perform quantifications of roof shingles, thermal protections, and finishes by
    a. identifying the unit of measurements used in roof materials, thermal protection, and finishes (1a, 1b);
    b. distinguishing the different types of shingles (1a, 1b);
    c. identifying the different materials used in dry and wet wall construction (1a, 1b);
    d. explaining the importance of roof underlayment and ice dam protection (1a, 1b);
    e. performing calculations to estimate roof materials, thermal protection, and finishes (1a, 1b, 1c, 2c).

11. Demonstrate an understanding of the various items under the general condition section of the specifications by
    a. explaining information in the general condition section of the estimates;
    b. identifying the different items included in this section;
    c. identifying the method used to quantify the different items.

12. Demonstrate an understanding of quantifying sustainable construction materials by
    a. performing cost comparison between traditional construction materials and green building materials (1a, 1b, 1c, 2c);
    b. evaluating cost implications of green building (1a, 1b, 2c);
    c. identifying factors that contribute to soft cost, capital cost, and initial investment in green building (1a, 1b);
    d. estimating cost of waste removal and recycling related to sustainable construction (1a, 1b).

CNBT 2266 - Practicum-Construction Engineering Tech

General

Course Key
602

Course Rubric	Course Number	Course Title
CNBT	2266	Practicum in Construction Engineering Technology/Technician

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14) Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. This is a capstone course. Required Prerequisite: Approval of Department Chair

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Approval of Department Chair

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Complete a semester project by completing the required hours in the office/field environment in a professional manner or completing a project (estimating, scheduling, and planning) plus at least 100 hours of field experience (alternate option) by
    a. preparing documentation of each day's work activities and experiences, including interaction with other office/site personnel as well as with consultants and clients (1a,1b);
    b. demonstrating satisfactorily how skills and knowledge learned in the classroom relate to work (1a,1b,1c);
    c. preparing a narrative report outlining experiences (1a,1b,1c).

2. Demonstrate understanding of the basic processes in construction by
    a. understanding the various construction processes (1a, 1b);
    b. calculating the estimated cost of a construction activity (1a, 1b, 2c);
    c. preparing a schedule of construction activities (1a, 1b, 2c);
    d. assigning resources for the different construction activities confidently (1a,1b,2c);
    e. using various construction equipment and computer technology (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

3. Demonstrate an understanding of the importance of industry immersion for students by
    a. identifying the various construction sectors (1a, 1b);
    b. distinguishing the various construction delivery processes (1a, 1b);
    c. identifying the various opportunities in the construction industry (1a, 1b).

4. Present a final report of the practicum experience by
    a. discussing the knowledge and skills gained through the practicum experience (1a, 1b);
    b. demonstrating skill in oral and written presentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

CNBT 2335 - Computer-Aided Construction Scheduling

General

Course Key
11707

Course Rubric
CNBT

Course Number
2335

Course Title
Computer-Aided Construction Scheduling

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures. Required Prerequisite: CNBT-1346

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for pre-requisite
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

Take CNBT-1346;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CNBT 1346

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify scheduling software programs; develop construction schedules; and explain components and procedures in scheduling. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand the process and method of project scheduling (planning, directing, controlling) and utilizing computer scheduling software (Primavera, MS Project) to perform various scheduling procedures by
    a. explaining the concept of the estimating process (1a, 1b);
    b. defining scheduling and planning (1a, 1b);
    c. explaining the importance of scheduling projects (1a, 1b).
2. Demonstrate understanding of the fundamental concept and types of scheduling methods and techniques by
    a. identifying the scheduling methods and techniques and their uses (1a, 1b, 2a, 2b);
    b. explaining the various types of activity relationships (1a, 1b, 2a, 2b);
    c. defining the critical path method (1a, 1b).
3. Demonstrate understanding of the concept of computerized scheduling by
    a. explaining the benefits of computerized scheduling to support successful project management (1a, 1b);
    b. demonstrating familiarity with the features and capabilities of the scheduling software (1a, 1b);
    c. preparing and setting up project information, time, and baseline of the project (1a, 1b).
4. Demonstrate understanding of how to set up information for a project by
    a. defining project elements (1a, 1b);
    b. developing the project and coding structures (reports) (1a, 1b);
    c. creating project calendars (1a, 1b);
    d. developing a project network with precedence relationships (1a, 1b, 2a, 2b, 2c);
    e. performing schedule calculations (1a, 2a, 2b, 2c);
    f. applying constraints to a schedule (1a, 1b);
    g. customizing the project layouts (1a, 1b);
    h. assigning resources and costs to a project (1a, 1b);
    i. defining a target schedule (1a, 1b);
    j. entering the appropriate status (1a, 1b);
    k. creating a computerized bar chart schedule of a project (1a, 1b);
    l. creating a computerized schedule or diagram/critical path diagram of a project (1a, 1b, 1c);
    m. preparing complete reports of the project (1a, 1b).
5. Prepare and consolidate project scheduling reports by
    a. creating a computerized bar chart schedule of a project (1a, 1b);
    b. creating a computerized schedule diagram/critical path diagram of a project (1a, 1b, 1c);
    c. creating computerized project progress reports and cost reports (1a, 1b, 3a, 3b).
6. Demonstrate understanding of the concept of the various legal structures of organization, cash flow analysis/accounting, equipment cost, tax, and depreciation by
    a. identifying the various legal forms of an organization (1a, 1b);
    b. preparing a cash flow analysis, ROR, and cost accounting of a project (1a, 1b, 2a, 2b);
    c. calculating equipment cost, tax, and depreciation cost of equipment (1a, 1b, 2a, 2b).

CNBT 2337 - Construction Estimating II

General

Course Key
8340

Course Rubric	Course Number	Course Title
CNBT	2337	Construction Estimating II

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Advanced estimating concepts using computer software for construction and crafts. Required Prerequisite: CNBT-1346

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CNBT-1346
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CNBT 1346

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize various estimating resources; determine types of estimating needed in construction; calculate quantities, costs, and time units; and develop computerized reports for detailed construction estimates. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the bidding process by
    a. identifying the processes in bidding (1a, 1b);
    b. identifying the bidding requirements and documents (1a, 1b);
    c. identifying the different bidding methods (1a, 1b).
2. Differentiate construction plans and specifications in a construction document by
    a. identifying the different information from the drawing plans and its importance (1a, 1b);
    b. outlining the content of the specifications (1a, 1b);
    c. identifying the relationship of drawings and specifications (1a, 1b);
    d. identifying and using a project manual (1a, 1b).
3. Demonstrate understanding of the advantages and disadvantages of manual and computerized estimating by
    a. explaining the commonly used estimating software in the construction industry (1a, 1b);
    b. understanding the importance of software as a tool in estimating (1a, 1b);
    c. appraising the future of computerized estimating (1a, 1b, 2e).
4. Demonstrate an understanding of the different type of estimates such as conceptual, square foot, assembly, and detailed estimates by
    a. discussing and explaining the conceptual estimate, preliminary estimate, and detailed estimate (1a, 1b);
    b. using the different methods of estimating in a real-world application problem (1a, 1b, 2c, 2e).
5. Discuss the principles of Time Value of Money (TVOM) by
    a. discussing the methods of determining interest value (1a, 1b);
    b. discussing the methods of determining future and current value of equipment (1a, 1b);
    c. explaining the principles of depreciation (1a, 1b);
    d. calculating depreciation cost of equipment (1a, 1b).
6. Define the term spreadsheet by
    a. explaining cells, rows, and columns in a spreadsheet (1a, 1b, 2e);
    b. distinguishing between a worksheet and a workbook (1a, 1b);
    c. creating a spreadsheet and database (1a, 1b);
    d. understanding the mathematical and logical capabilities of MS Excel (1a, 1b);
    e. operating and demonstrating skills in using MS Excel (1a, 1b, 2c, 2e).
7. Demonstrate the ability to create programs to calculate quantity take off for the different phases/aspects of construction estimating by
    a. applying MS Excel to create a template for estimating (1a, 1b);
    b. differentiating between a worksheet and summary sheet (1a, 1b);
    c. solving typical construction technology-based problems using MS Excel to produce a worksheet (1a, 1b, 2c);
    d. utilizing appropriate formulas to quantify materials (1a, 1b).
8. Demonstrate understanding of how labor estimates are a direct correlation of the material take off by
    a. defining items that need to be estimated in the "general condition" section of the specifications (1a, 1b);
    b. identifying items under the direct cost and indirect cost of the project (1a, 1b);
    c. understanding the relationship of construction management in the estimating process (1a, 1b);
    d. performing calculations for direct and indirect costs of a project (1a, 1b, 1c, 2c, 2e).
9. Demonstrate the use of WINEST software as a tool for the project manager by
    a. learning the different capabilities of the WINEST program (1a, 1b);
    b. demonstrating knowledge in the use of the WINEST software program (1a, 1b);
    c. producing material take offs for simple commercial building projects (1a, 1b, 1c, 2c, 2e);
    d. applying a cost data base (1a, 1b, 1c, 2c, 2e);
    e. manipulating and navigating various capabilities and functions of WINEST (1a, 1b, 1c, 2c, 2e).

CNBT 2342 - Construction Management I

General

Course Key
607

Course Rubric
CNBT

Course Number
2342

Course Title
Construction Management I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of the construction industry and management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making. The course also deals with the concepts and principles in estimating, planning, scheduling, controlling and construction ethics.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify types of construction and organizational structures. Explain purposes for various construction documents. Describe the roles and responsibilities of the key players in the building industry. Identify environmental health and safety agency requirements. Identify the various construction crafts and trades; and describe sustainable building practices and standards. Define terms associated with construction supervision, leadership, motivation, problem solving, and decision making. Demonstrate problem solving and decision making skills in construction problems. Apply sustainable building codes and concepts. Demonstrate techniques for successful contractor interaction including professional protocol and communication. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the overview of the construction industry by
    a. describing the different construction industry sectors (1a, 1b);
    b. defining management, project, and project management (1a, 1b);
    c. describing the different characteristics of the construction industry cycle (1a, 1b);
    d. explaining the characteristics of a construction project and project manager (1a, 1b);
    e. identifying the future trends and direction of the construction industry (1a, 1b);
    f. defining terms associated with construction supervision, leadership, motivation, problem solving, and decision making (1a, 1b, 2a, 2c);
    g. demonstrating understanding of the various techniques for successful contractor interaction, including professional protocol and communication (1a, 1b).
2. Demonstrate an understanding of the fundamentals of project management processes by
    a. demonstrating a working knowledge of the different construction project processes (1a, 1b);
    b. identifying the roles, responsibilities, and professional ethics of the construction team player (1a, 1b);
    c. explaining the life cycle of a construction project (1a, 1b);
    d. explaining the concept of value engineering (1a, 1b);
    e. illustrating the basic principles and concepts of sustainability (1a, 1b);
    f. demonstrating understanding of green and sustainable building codes and standards (1a, 1b).
3. Demonstrate an understanding of construction contracts and different delivery methods by
    a. explaining project risk and liability (1a, 1b);
    b. explaining different project delivery methods (1a, 1b);
    c. identifying the appropriate contract types for different project delivery methods (1a, 1b).
4. Demonstrate an understanding of the fundamental principles of cost estimating by
    a. defining the different types of estimates (1a, 1b);
    b. identifying the different cost variables of estimates (1a, 1b);
    c. calculating project cost and variation in cost due to time, location, and size of the project (1a, 1b, 1c, 2a, 2c);
    d. evaluating cost analysis and economic implications for green building materials (1a, 1b, 1c, 2a, 2c).
5. Demonstrate an understanding of scheduling fundamentals by
    a. defining scheduling (1a, 1b);
    b. identifying the different activities and defining WBS (1a, 1b);
    c. explaining the different methods of scheduling (1a, 1b);
    d. explaining the purpose and usage of bar chart, matrix, and network scheduling (1a, 1b);
    e. demonstrating the ability to perform calculations and prepare network scheduling (1a, 1b, 1c, 2a, 2c).
6. Demonstrate an understanding of the fundamentals of project control by
    a. defining the objectives of project control systems (1a, 1b);
    b. calculating direct and indirect costs of a project (1a, 1b, 2a, 2c);
    c. performing calculations of project crashing (1a, 1b, 2a, 2c);
    d. preparing a cumulative production graph of the project progress (1a, 1b, 1c, 2c);
    e. demonstrating the ability to monitor and update a project's budget and schedule (1a, 1b, 1c, 2e).
7. Demonstrate an understanding of construction law and labor/management relations by
    a. explaining the basic history of labor/management relations in the U.S. (1a, 1b);
    b. explaining common methods and procedures related to claim, liability, and dispute resolution (1a, 1b).

COMM 1307 - Introduction to Mass Communication

General

Course Key
16308

Course Rubric
COMM

Course Number
1307

Course Title
Introduction to Mass Communication

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Survey of basic content and structural elements of mass media and their functions and influences on society.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

COMM 1335 - Introduction to Electronic Media

General

Course Key
16310

Course Rubric
COMM

Course Number
1335

Course Title
Introduction to Electronic Media

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) An overview of the development, regulation, economics, social impact, and industry practices in electronic media.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

COMM 1336 - Video Production I

General

Course Key
16311

Course Rubric
COMM

Course Number
1336

Course Title
Video Production I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Practical experience in the operation of studio and control room equipment, including both pre- and post-production needs. Recommended Prerequisite(s): COSC-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cosc-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

COMM 2303 - Audio Production

General

Course Key
16312

Course Rubric
COMM

Course Number
2303

Course Title
Audio Production

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-1-3) Practical experience in the operation of audio equipment, including both pre- and post-production needs. Recommended Prerequisite(s): COSC-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cosc-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

COMM 2311 - Media Writing

General

Course Key
16313

Course Rubric
COMM

Course Number
2311

Course Title
Media Writing

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-3). Fundamentals of writing for the mass media. Includes instruction in professional methods and techniques for gathering, processing, and delivering content. Recommended Prerequisite: Average keyboarding skills

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

COMM 2339 - Writing for Radio, Television & Film

General

Course Key
16314

Course Rubric
COMM

Course Number
2339

Course Title
Writing for Radio, Television and Film

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Introduction to basic script formats, terminology, and writing techniques, including the writing of commercials, public service announcements, promotions, news, documentary, and fictional materials.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

COMM 2366 - Film Appreciation

General

Course Key
16315

Course Rubric
COMM

Course Number
2366

Course Title
Film Appreciation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2). Survey and analyze cinema including history, film techniques, production procedures, selected motion pictures, and cinema's impact on and reflection of society. Students may not receive credit for both COMM-2366 and DRAM 2366.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

COSC 1301 - Introduction to Computing

General

Course Key
16316

Course Rubric
COSC

Course Number
1301

Course Title
Introduction to Computing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-1) Overview of computer systems-hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

COSC 1420 - "C" Programming

General

Course Key
16317

Course Rubric
COSC

Course Number
1420

Course Title
C Programming

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Introduces the fundamental concepts of structured programming in the C language. Topics include data types; control structures; functions, structures, arrays, pointers, pointer arithmetic, unions, and files; the mechanics of running, testing, and debugging programs; introduction to programming; and introduction to the historical and social context of computing. Recommended Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cosc-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

COSC 1436 - Programming Fundamentals I

General

Course Key
16318

Course Rubric
COSC

Course Number
1436

Course Title
Programming Fundamentals I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) This course introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. This course is included in the Field of Study Curriculum for Computer Science. Recommended Prerequisite: COSC 1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cosc-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

COSC 1437 - Programming Fundamentals II

General

Course Key
16319

Course Rubric
COSC

Course Number
1437

Course Title
Programming Fundamentals II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2). This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.) Required Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take COSC-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

COSC 2436 - Programming Fundamentals III

General

Course Key
16321

Course Rubric
COSC

Course Number
2436

Course Title
Programming Fundamentals III

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2). Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), searching, sorting, recursion, and algorithmic analysis. Programs will be implemented in an appropriate object oriented language. (This course is included in the Field of Study Curriculum for Computer Science.) Required Prerequisite: COSC-1437

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take COSC-1437
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

COSC 2425 - Computer Organization

General

Course Key
16320

Course Rubric
COSC

Course Number
2425

Course Title
Computer Organization

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Required Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take COSC-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

CPMT 1403 - Introduction to Computer Technology

General

Course Key
14900

Course Rubric
CPMT

Course Number
1403

Course Title
Introduction to Computer Technology

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) A fundamental computer course that provides explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define terms, expressions and phrases associated with computers; and use basic commands in various applications. Explain the internal components of a computer; assemble a computer system; install an operating system; and troubleshoot using system tools and diagnostic software. Use simulation and virtual software to investigate operating systems.

1. Demonstrate knowledge computer terms, phrases, and expressions (1a, 1b, 2c).
2. Demonstrate basic commands in various applications (1a, 1b, 2c).
3. Demonstrating the ability to assemble a computer system (1a, 1b, 2c, 2e).
4. Demonstrating the ability to diagnose and isolate faulty components (1a, 1b, 2c, 2e).
5. Demonstrating the ability to install/connect peripherals (1a, 1b, 2c, 2e).
6. Demonstrating an understanding of the fundamental operating systems concepts, methodologies, and technologies (1a, 1b, 2c).
7. Demonstrating the ability to install an operating system (1a, 1b, 2c, 2e).

CRIJ 1301 - Introduction to Criminal Justice

General

Course Key
16322

Course Rubric
CRIJ

Course Number
1301

Course Title
Introduction to Criminal Justice

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal law; and justice agencies and processes.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CRIJ 1306 - Court Systems and Practices

General

Course Key
16323

Course Rubric
CRIJ

Course Number
1306

Course Title
Court Systems and Practices

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is a study of the court system as it applies to the structures, procedures, practices and sources of law in American courts, using federal and Texas statutes and case law. Recommended Prerequisite: CRIJ-1310

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take crij-1310;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

CRIJ 1307 - Crime in America

General

Course Key
16324

Course Rubric
CRIJ

Course Number
1307

Course Title
Crime in America

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime. Recommended Prerequisite: SOCI-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take soci-1301
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

CRIJ 1310 - Fundamentals of Criminal Law

General

Course Key
16325

Course Rubric
CRIJ

Course Number
1310

Course Title
Fundamentals of Criminal Law

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course is the study of criminal law including application of definitions, statutory elements, defenses and penalties using Texas statutes, the Model Penal Code, and case law. The course also analyzes the philosophical and historical development of criminal law and criminal culpability.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CRIJ 1313 - Juvenile Justice System

General

Course Key
16326

Course Rubric
CRIJ

Course Number
1313

Course Title
Juvenile Justice System

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). A study of the juvenile justice process to include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CRIJ 2313 - Correctional Systems and Practices

General

Course Key
16327

Course Rubric
CRIJ

Course Number
2313

Course Title
Correctional Systems and Practices

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course is a survey of institutional and non-institutional corrections. Emphasis will be placed on the organization and operation of correctional systems; treatment and rehabilitation; populations served; Constitutional issues; and current and future issues.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CRIJ 2314 - Criminal Investigation

General

Course Key
16328

Course Rubric
CRIJ

Course Number
2314

Course Title
Criminal Investigation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. Recommended Prerequisite: CRIJ-1310

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take crij-1310;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

CRIJ 2323 - Legal Aspects of Law Enforcement

General

Course Key
16329

Course Rubric
CRIJ

Course Number
2323

Course Title
Legal Aspects of Law Enforcement

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CRIJ 2328 - Police Systems and Practices

General

Course Key
16330

Course Rubric
CRIJ

Course Number
2328

Course Title
Police Systems and Practices

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course examines the establishment, role and function of police in a democratic society. It will focus on types of police agencies and their organizational structure, police-community interaction, police ethics, and use of authority.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

CSIR 1459 - Digital Data Communication

General

Course Key
12182

Course Rubric
CSIR

Course Number
1459

Course Title
Digital Data Communication

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Introduction to the theory and troubleshooting skills needed in the digital data communication field. This course covers the principles of communications involving digital data and analog signals. Pulse modulation, multiplexing, and microwave communications are introduced. Emphasis on measurements and diagnostic troubleshooting techniques. Recommended Prerequisite: CETT-1441 and CETT-1445

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequiste

10
A Requirement block where all subrequirements are required

#Take CETT-1441 CETT-1445;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CETT 1441 and CETT 1445

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

1. Demonstrate an understanding of data and network communications by:
    a. describing a data communication system;
    b. describing a data communication link;
    c. defining character codes;
    d. defining digital data rates;
    e. defining serial data formats;
    f. describing encoded data formats.
2. Demonstrate an understanding of the telephone system by:
    a. defining the telephone system;
    b. listing specifications and parameters;
    c. identifying line impairments.
3. Demonstrate an understanding of error detection and correction by:
    a. explaining asynchronous data methods;
    b. explaining synchronous data error methods;
    c. identifying error testing equipment.
4. Demonstrate an understanding of open systems network models by:
    a. describing data topologies;
    b. defining data switching;
    c. listing the types of networks;
    d. explaining OSI architecture (OSI);
    e. explaining systems network Architecture (SNA).
5. Demonstrate an understanding of OSI physical layer components by:
    a. listing the units of a communications link;
    b. describing an RS232C interface;
    c. describing the RS449 interface standard;
    d. describing RS422 and RS423 interface standards;
    e. defining FSK modems;
    f. listing additional types of modems;
    g. defining .34 and V.90 modems.

6. Demonstrate an understanding of higher capacity data communications by:
    a. describing multiplexing methods;
    b. explaining the sampling theorem;
    c. explaining quantization;
    d. explaining pulse code modulation;
    e. explaining delta modulation;
    f. describing digital T carriers;
    g. defining companding;
    h. defining CODECs.

7. Demonstrate an understanding of data link layer protocols by:
    a. describing data link sections;
    b. defining character oriented protocols;
    c. defining bit oriented protocols;
    d. defining protocol analyzers.

8. Demonstrate an understanding of network architecture and protocols by:
    a. listing networks by size;
    b. describing IEEE 802.3 and ethernet;
    c. describing IEEE 802.4 Token Bus;
    d. describing IEEE 802.5 Token Ring;
    e. defining network interface cards (NIC);
    f. defining interconnecting LANs;
    g. describing IEEE 802.6 Metropolitan Area Network (MAN);
    h. defining X.25 packet switch protocol.

9. Demonstrate an understanding of integrated services and routing protocols by:
    a. defining integrating services;
    b. describing broadband ISDN;
    c. describing IEEE 802.9 Integrated Voice and Data Services;
    d. describing Digital Subscriber Line (DSL);
    e. defining private branch exchange;
    f. defining Asynchronous Transfer Mode (ATM);
    g. defining frame relay.

10. Demonstrate an understanding of the internet and TCP/IP by:
    a. explaining internet history;
    b. listing uses for the internet;
    c. explaining accessing the internet;
    d. describing internet address;
    e. defining security on the internet;
    f. defining authentication;
    g. explaining firewalls;
    h. defining intranets and extranets;
    i. describing TCP/IP.

11. Demonstrate an understanding of fiber optic communications by:
    a. describing basic concepts of light propagation;
    b. describing fiber optic cables;
    c. defining light sources;
    d. defining optical detectors;
    e. explaining fiber cable losses;
    f. defining wave division multiplexing;
    g. defining fiber distribution data interface;
    h. defining FDII-II isochronous traffic;
    i. describing the fiber channel;
    j. defining SONET.

12. Demonstrate an understanding of wireless communications systems by:
    a. defining microwave communications;
    b. describing cellular mobile telephone service;
    c. defining personal communications systems;
    d. defining IEEE 802.11 wireless LAN;
    e. describing digital packet network;
    f. describing satellite communications;
    g. describing methods of satellite communications;
    h. defining satellite networking.

CTMT 1271 - Computed Tomography (CT) Review

General

Course Key
14775

Course Rubric
CTMT

Course Number
1271

Course Title
Computed Tomography (CT) Review

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Technical Local Need

Description
(2-2-0) Computed Tomography (CT) Review addresses recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Required Prerequisite(s): Graduate of a 2-year accredited medical radiography program in ionizing radiation, ARRT certification in Radiography, Radiation Therapy, or Nuclear Medicine

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Graduate of a 2 year accredited medical radiography program in ionizing radiation, ARRT certification in Radiography, Radiation Therapy, or Nuclear Medicine

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Computed Tomography from the American Registry of Radiologic Technologists, The Joint Review Committee on Education in Computed Tomography (Professional Curriculum topics), and the current Radiology Curriculum Guide and Practice Standards from American Society of Radiologic Technology.

End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the role of an imaging professional by:
    a. displaying knowledge of patient care and its associated competencies (1a, 1b, 1c, 2b, 2c, 2e).

2. Identify the principles of pharmacology by:
    a. identifying the route used (1a, 1b, 1c, 2b, 2c, 2e);
    b. identifying different levels of controlled substances (1a, 1b, 1c, 2b, 2c, 2e).

3. Distinguish the differences between biopharmaceutics and pharmacology by:
    a. identifying the varying dosage forms (1a, 1b, 1c, 2b, 2c, 2e);
    b. identifying the varying vehicles (1a, 1b, 1c, 2b, 2c, 2e).

4. Identify the different drug classifications by:
    a. demonstrating knowledge of cardiac meds (1a, 1b, 1c, 2b, 2c, 2e);
    b. demonstrating knowledge of anticoagulants (1a, 1b, 1c, 2b, 2c, 2e);
    c. demonstrating knowledge of analgesics (1a, 1b, 1c, 2b, 2c, 2e);
    d. demonstrating knowledge of antihistamines (1a, 1b, 1c, 2b, 2c, 2e).

5. Demonstrate readiness for the registry exam by:
    a. reviewing questions for the registry exam (1a, 1b, 1c, 2b, 2c, 2e);
    b. passing practice registry exams (1a, 1b, 1c, 2b, 2c, 2e).

CTMT 2336 - Computed Tomography Equipment/Methodolo

General

Course Key
12999

Course Rubric	Course Number	Course Title
CTMT	2336	Computed Tomography Equipment and Methodology

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Skill development in the operation of computed tomographic equipment, focusing on routine protocols, image quality, quality assurance, and radiation protection.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Computed Tomography from the American Registry of Radiologic Technologists, The Joint Review Committee on Education in Computed Tomography (Professional Curriculum topics), and the current Radiology Curriculum Guide and Practice Standards from American Society of Radiologic Technology.

End-of-Course Outcomes: Determine operating protocols for routine computed tomography to include radiation protection and quality assurance; and analyze imaging artifacts. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the basics functions of a scanner by:
    a. describing the basic functions of a CT scanner (1a, 1b, 1c, 2b, 2c, 2e);
    b. recognizing the differences between the different platforms (GE, Siemens, Toshiba) (1a, 1b, 1c, 2b, 2c, 2e);
    c. describing how an image is created (1a, 1b, 1c, 2b, 2c, 2e).
2. Line up the patient for procedures by:
    a. identifying the landmarks (1a, 1b, 1c, 2b, 2c, 2e).
3. Recognize different protocols by:
    a. displaying familiarity with different protocols on the different systems (1a, 1b, 1c, 2b, 2c, 2e).
4. Demonstrate knowledge of the history and basic principles of scanning by:
    a. understanding how the slices are obtained and reconstructed (1a, 1b, 1c, 2b, 2c, 2e);
    b. identifying the different generations of scanners (1a, 1b, 1c, 2b, 2c, 2e).
5. Demonstrate knowledge of rad dose and factors by:
    a. identifying an exposure (1a, 1b, 1c, 2b, 2c, 2e);
    b. identifying an absorbed dose (1a, 1b, 1c, 2b, 2c, 2e);
    c. identifying an effective dose (1a, 1b, 1c, 2b, 2c, 2e).

CTMT 2460 - Clinical-Radiologic Technology/Science

General

Course Key
11972

Course Rubric	Course Number	Course Title
CTMT	2460	Clinical-Radiologic Technology/ Science-Radiographer

Semester Credit Hours	Lecture Hours	Lab Hours
4	0	12

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-12) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Computed Tomography from the American Registry of Radiologic Technologists, The Joint Review Committee on Education in Computed Tomography (Professional Curriculum topics), and the current Radiology Curriculum Guide and Practice Standards from American Society of Radiologic Technology.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the technical factors/protocols for each scan by:
    a. citing the factors from the different types of machines (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. using the factors correctly (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Demonstrate skills and knowledge in clinic from didactic learning by:
    a. accomplishing initial competency documentation under direct supervision (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. accomplishing interim proficiency documentation under indirect supervision (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. accomplishing task items as listed on the ARRT Task Inventory (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Demonstrate patient care and the administrating contrast by:
    a. using the correct gauge of needle for procedure (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. determining which contrast and how much to give (1a, 1b, 1c, 2a, 2b, 2c, 2d).

CTMT 2461 - Clinical-Radiologic Technology/Science

General

Course Key
11973

Course Rubric	Course Number	Course Title
CTMT	2461	Clinical-Radiologic Technology/ Science-Radiographer

Semester Credit Hours	Lecture Hours	Lab Hours
4	0	12

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-12) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Computed Tomography from the American Registry of Radiologic Technologists, The Joint Review Committee on Education in Computed Tomography (Professional Curriculum topics), and the current Radiology Curriculum Guide and Practice Standards from American Society of Radiologic Technology.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the technical factors/protocols for each scan by:
    a. citing the factors from the different types of machines (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. using the factors correctly (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Demonstrate skills and knowledge in clinic from didactic learning by:
    a. accomplishing initial competency documentation under direct supervision (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. accomplishing interim proficiency documentation under indirect supervision (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. accomplishing task items as listed on the ARRT Task Inventory (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Demonstrate patient care and the administrating contrast by:
    a. using the correct gauge of needle for procedure (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. determining which contrast and how much to give (1a, 1b, 1c, 2a, 2b, 2c, 2d).

DAAC 1304 - Pharmacology of Substance Use Disorders

General

Course Key
15215

Course Rubric	Course Number	Course Title
DAAC	1304	Pharmacology of Substance Use Disorders

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Emphasizes pharmacological effects of substances, including tolerance, dependence, cross addiction, drug interaction, withdrawal, and recovery. Describes the psychological and physiological effects of substance use and behaviors.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Differentiate and explain the stages of drug use and addiction; identify the components of the central nervous system and explain their general functions in relation to drug use; explain the physiological and psychological effects of drugs or addictive behavior on the major systems of the body; identify classes and schedules of psychoactive drugs; and define terms common to drug use, misuse, abuse, and dependence. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the terms drug, illicit drug use, deviant drug use, drug abuse, and addiction/dependency/compulsive behaviors by:
    a. categorizing four types of toxicity and along with examples of each;
    b. demonstrating the ability to recognize problems and to devise and implement plan of action in which substance abuse impacts the family;
    c. using efficient learning techniques to acquire and apply new knowledge and skills to familiarize oneself with the terminology and approaches to intervention using prominent therapeutic theories;
    d. demonstrating the ability to organize, identify, and process information to various definitions of drug abuse, use, dependency, and compulsive behaviors;
    e. explaining similarities and differences in treatment process for both individual and family recovery of substance abusers.
2. Demonstrate an understanding of differences between physical and psychological dependence by:
    a. discussing specific goals and constraints in treatment of dependence;
    b. evaluating one's own experience as related to readings, media, and research regarding drug use and dependence;
    c. explaining similarities and differences in research on the brain as it relates to physical and psychological dependence;
    d. explaining the impact of mood altering substances and behaviors as they relate to family of origin, taking into consideration various cultural and national differences.
3. Demonstrate an understanding of how neurotransmitters are released from neurons and from what parts of the nervous system they come, and of interaction with receptors by:
    a. categorizing major subdivisions of the nervous system and the functions of the two parts of the autonomic nervous system;
    b. describing the life cycle of the neurotransmitter molecule and various ways that psychoactive drugs can interact with it.
4. Demonstrate an understanding of the five major categories of psychoactive drugs and between specific and nonspecific drug effects by:
    a. explaining similarities and differences in depressant drugs such as barbiturates, benzodiazepines, and other classes of depressive drugs;
    b. explaining similarities and differences in classes of stimulants and effects on body and behavior;
    c. describing the process by which FDA has reviewed OTC products for safety and effectiveness;
    d. describing the changes in approaches to drug use based on current research related to medical professionals.

DAAC 2307 - Family Intervent-Substance Use Disorder

General

Course Key
15579

Course Rubric
DAAC

Course Number
2307

Course Title
Family Intervention with Substance Use Disorders

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Examination of family systems focusing on the effects of substance use and recovery.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the effects of addiction on the family system; differentiate between various family treatment processes; identify the impact of addictive behaviors as they relate to diverse family structures; and analyze the roles of the family members in the addictive and recovery process. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the various styles and compositions of family life in the United States and of unique strengths and potential problem areas including substance abuse using a multicultural approach by:
    a. demonstrating the ability to define and classify various methods of family therapy appropriate to population served;
    b. demonstrating the ability to recognize problems and to devise and implement plan of action in which substance abuse and violence impact the family;
    c. using efficient learning techniques to familiarize oneself with the terminology and approaches to intervention of the prominent therapeutic models utilized by professional therapists;
    d. generating new ideas regarding misinformation and misperceptions about substance abuse as well as approaching the problem from a systems perspective;
    e. demonstrating the ability to organize, identify, and process information to various family roles within the substance abusing family system;
    f. explaining similarities and differences in the treatment process for both individual and family recovery of substance abusers and causes and occurrences of domestic violence.
2. Demonstrate an understanding of characteristics of healthy families and how these can be developed and sustained by:
    a. displaying ability to specify goals and constraints to apply to families of dysfunction based on characteristics found within functional family systems;
    b. demonstrating the ability to evaluate and generate alternatives to apply to families of dysfunction based on characteristics found within functional family systems;
    c. evaluating one's own experience as a member of a family system by developing a Genogram of one's own family system;
    d. explaining similarities and differences between healthy family systems styles of behavior and relationship to one another during crises, lifestyle changes, and other anticipated life events and family systems of dysfunction;
    e. explaining the impact of mood altering substances and behaviors as they relate to family systems from a multicultural and trans-generational perspective;
    f. describing the role of the family in the recovery process.

DAAC 2330 - Multicultural Counseling

General

Course Key
10520

Course Rubric
DAAC

Course Number
2330

Course Title
Multicultural Counseling

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An examination of the multicultural counseling theories and characteristics of diverse populations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify sociopolitical barriers to treatment; examine counselor's personal values, biases and prejudices; explain the counselor's responsibility in developing and maintaining cultural competence; compare and contrast multicultural counseling theories; and analyze and categorize unique issues affecting diverse populations. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of their attitudes, beliefs, understandings, and acculturative experiences.
2. Analyze multicultural and pluralistic trends, including characteristics and concerns with diverse populations.
3. Examine how social and cultural factors influence the social service relationship and are reflected in theory and practice.
4. Explore ethical and legal considerations.
5. Articulate essential basic diversity competencies.
6. Engage in experiential activities involving eliminating biases, prejudices, and processes of intentional and unintentional oppression and discrimination into a professional practice framework.
7. Demonstrate an understanding of cultural variables that impact sustainability, including but not limited to poverty, privilege, and cycle of oppression.
8. Comprehend how age, mental, and physical characteristics impact client experience and influence services received.
9. Demonstrate an ability to use various strategies for working with diverse individuals, couples, families, groups, and communities.

DAAC 2341 - Counseling of Substance Use Disorders

General

Course Key
15217

Course Rubric	Course Number	Course Title
DAAC	2341	Counseling of Substance Use Disorders

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Advanced examination of knowledge, skills, attitudes, techniques, confidentiality and ethical guidelines applied in the counseling, treatment, prevention, and recovery of substance use disorders.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the concepts of substance use disorder counseling and recovery; identify issues of confidentiality and ethics as applied to the client; and demonstrate the skills and techniques of counseling for substance use disorders. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify special skills and techniques in the application of counseling skills for the alcohol and other drug client by:
    a. defining a working definition of substance abuse, substance use, and substance dependence;
    b. explaining similarities and differences in individualized perspective when counseling substance abusers using KSA model;
    c. describing continuum of substance abuse;
    d. describing multidimensional treatment focusing on long term recovery;
    e. developing skills for completing a comprehensive assessment and treatment plan;
    f. displaying ability to review confidentiality rules and laws and review ethical issues.
2. Demonstrate an understanding of principles for twenty-first century substance abuse counseling by:
    a. displaying ability to focus on evidence based practices;
    b. using a respectful and positive approach with all clients;
    c. using a multicultural perspective to meet the needs of diverse client populations;
    d. displaying ability to support the idea that client advocacy is central to counselor's role.
3. Demonstrate an understanding of the portrayal of substance abuse counseling as a field in the midst of a paradigm shift from coercion to collaboration, from scare tactics to empowerment and respect, to models based on science by:
    a. using motivational interviewing;
    b. using various treatment planning techniques for various substances of abuse;
    c. identifying most current brain research and importance in treatment of substance abuse client;
    d. explaining similarities and differences in valid and reliable assessment instruments for various substances of abuse.

DAAC 2343 - Current Issues

General

Course Key
15240

Course Rubric	Course Number	Course Title
DAAC	2343	Current Issues

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Examination of current issues related to substance use disorders.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify current issues within substance use counseling and analyze treatment implications related to substance use disorders. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of substance use counseling, non-substance related disorder counseling, co-occurring disorder counseling, and identify treatment implications related to these issues by:
    a. defining use, abuse, and addiction by using the DSM-V;
    b. discussing similarities and differences between substance misuse and compulsive behaviors;
    c. demonstrating in writing an understanding of differences noted in chemical dependency and problematic behaviors, e.g., gambling, etc.;
    d. demonstrating an understanding of co-occurring disorders and appropriate treatment;
    e. discussing similarities and differences between prescription misuse and illicit drugs of addiction;
    f. explaining good pill/bad pill using brain research.
2. Demonstrate an understanding of the KSAs as developed by the chemical dependency counseling professionals by:
    a. discussing similarities and differences between KSAs and twelve core functions;
    b. creating a comparative spread sheet incorporating twelve core functions into KSA's format by locating, reading, and interpreting implementation of KSAs and application in the workplace;
    c. explaining the relationship between KSAs and twelve core functions and competencies needed for each area.
3. Demonstrate an understanding of various treatment modalities specific to chemical dependency treatment by:
    a. explaining motivational interviewing, including how to apply modality to client;
    b. explaining treatment modalities recommended for various types of addiction;
    c. demonstrating the ability to organize and maintain information differentiating treatment modalities for children and adults;
    d. using efficient learning techniques to acquire and apply new knowledge regarding substance use counseling versus psychotherapy for other issues of mental health.
4. Demonstrate the ability to locate, interpret, and respond to educational expectations necessary to succeed on required state examination by:
    a. demonstrating understanding of KSAs and twelve core functions sufficient to succeed on oral, written, and case presentation for state examination;
    b. locating on the internet procedures for completing all legislative requirements set forth for licensure.

DAAC 2366 - Practicum: Substance Abuse/Addiction

General

Course Key
12697

Course Rubric
DAAC

Course Number
2366

Course Title
Practicum: Substance Abuse/Addiction Counseling

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
21

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-21) Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Required Prerequisite: Consent of Program Coordinator Required Corequisite: DAAC-2343

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take DAAC-2343
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Consent of Program Coordinator Required Corequisite(s): DAAC 2343

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Complete the appropriate number of external learning experience hours under the direct supervision of an assigned supervisor while displaying a professional demeanor, enthusiasm, and dependability in the performance of assigned tasks by:
    a. completing twelve core functions otherwise known as KSAs successfully;
    b. demonstrating the ability to identify, organize, plan, and allocate time to relevant work-place activities;
    c. demonstrating the ability to organize and prioritize assignments utilizing best counseling methods and techniques for the client's welfare;
    d. demonstrating the ability to work well with and get along with co-workers, administrators, and supervisors as assigned and to respond appropriately to the direction of the supervisor;
    e. using efficient learning techniques to acquire and apply new knowledge and skills including computer usage for treatment plans, client progress notes, etc.

DANC 1110 - Tap Dance

General

Course Key
16331

Course Rubric
DANC

Course Number
1110

Course Title
Tap Dance

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction in the fundamental techniques and concepts associated with Tap dance. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 1112 - Dance Practicum

General

Course Key
16332

Course Rubric
DANC

Course Number
1112

Course Title
Dance Practicum

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Practicum in dance related topics with emphasis on practical skills necessary for the field. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 1151 - Freshman Dance Performance

General

Course Key
16333

Course Rubric
DANC

Course Number
1151

Course Title
Freshman Dance Performance

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction in dance performance through experiential projects at the freshman level. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 1201 - Dance Composition- Improvisation

General

Course Key
16334

Course Rubric
DANC

Course Number
1201

Course Title
Dance Composition - Improvisation

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-2) This introductory course in improvisation will investigate spontaneous problem solving as a means of generating movement for dance composition. Students will be called upon to explore and respond to various forms of stimuli in a safe and supportive learning environment within solo and group work.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 1241 - Beginning Ballet

General

Course Key
16335

Course Rubric
DANC

Course Number
1241

Course Title
Beginning Ballet

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-2) Instruction in the fundamental techniques and concepts associated with ballet. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 1245 - Beginning Modern Dance

General

Course Key
16336

Course Rubric
DANC

Course Number
1245

Course Title
Beginning Modern Dance

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-2) Instruction in the fundamental techniques and concepts associated with the concert form of modern dance. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 1247 - Beginning Jazz Dance

General

Course Key
16337

Course Rubric
DANC

Course Number
1247

Course Title
Beginning Jazz Dance

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-2) Instruction in the fundamental techniques and concepts associated with jazz dance. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 1301 - Dance Composition-Choreography

General

Course Key
16338

Course Rubric
DANC

Course Number
1301

Course Title
Dance Composition - Choreography

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is an examination of the principles of movement generation, phrasing, choreographic structure, and manipulation. Integration of choreographic principles will foster the growth of personal artistic style. Required Prerequisite: DANC-1201

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites
Type
Required

10
A Requirement block where all subrequirements are required

#Take DANC-1201;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

DANC 2151 - Sophomore Dance Performance

General

Course Key
16339

Course Rubric
DANC

Course Number
2151

Course Title
Sophomore Dance Performance

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction in dance performance through experiential projects at the sophomore level. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 2241 - Intermediate Ballet

General

Course Key
16340

Course Rubric
DANC

Course Number
2241

Course Title
Intermediate Ballet

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-2) Instruction in the intermediate techniques and concepts associated with ballet. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 2245 - Intermediate Modern Dance

General

Course Key
16341

Course Rubric
DANC

Course Number
2245

Course Title
Intermediate Modern Dance

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-2) Instruction in the intermediate techniques and concepts associated with the concert form of modern dance. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 2247 - Intermediate Jazz Dance

General

Course Key
16343

Course Rubric
DANC

Course Number
2247

Course Title
Intermediate Jazz Dance

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-2) Instruction in the intermediate techniques and concepts associated with jazz dance. May be repeated for credit once.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DANC 2303 - Dance Appreciation

General

Course Key
16344

Course Rubric
DANC

Course Number
2303

Course Title
Dance Appreciation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A general survey of dance forms designed to create an appreciation of the vocabulary, techniques, and purposes of the creative process. This course includes critical interpretation and evaluations of choreographic works and dance forms within cultural and historical contexts.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DEMR 1229 - Preventative Maintenance

General

Course Key
15253

Course Rubric
DEMR

Course Number
1229

Course Title
Preventative Maintenance

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) An intermediate course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply preventative maintenance practices; perform preventative maintenance on systems; and practice appropriate record keeping.

Upon successful completion of this course, students will:

1. Utilize appropriate safety procedures (1a, 1b, 2c, 2d, 2e).
2. Demonstrate safe, professional, and responsible work practices (1a, 1b, 2c, 2d, 2e).
3. Demonstrate proper use of shop equipment and tools (1a, 1b, 2c, 2d, 2e).
4. Use service information correctly (1a, 1b, 2c, 2d, 2e).
5. Perform basic maintenance (1a, 1b, 2c, 2d, 2e).

DEMR 1230 - Steering and Suspension I

General

Course Key
14477

Course Rubric	Course Number	Course Title
DEMR	1230	Steering and Suspension I
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
2	1	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) A study of design, function, maintenance, and repair of steering and suspension systems. Emphasis on troubleshooting and repair of failed components. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify failed components using visual inspections, troubleshooting procedures and equipment; repair or replace parts on various steering and suspension systems; and adjust components on various steering and suspension systems.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair front and rear suspension systems by:
    a. diagnosing shock absorber components and control arm, ball joint, spring, and torsion bar components (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing shock absorber components and control arm, ball joint, spring, and torsion bar components (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of the operation and construction of suspension systems by:
    a. explaining the purpose, operation, and components of different types of front and rear suspension systems (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of the operation of different types of steering systems by:
    a. explaining the purpose, operation, and components of a power steering rack and pinion (1a, 1b, 2c, 2d);
    b. explaining the purpose, operation, and components of a power steering gear (1a, 1b, 2c, 2d);
    c. explaining the purpose, operation, and components of a power steering pump (1a, 1b, 2c, 2d);
    d. explaining the purpose, operation, and components of various types of steering linkages (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of different types of steering systems by:
    a. diagnosing power steering rack and pinion components, gear components, pumps, and different types of steering linkages (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing power steering rack and pinion components, gear components, pumps, and different types of steering linkages (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of alignment and suspension angles by:
    a. explaining the purpose of SAI, caster, camber, and toe (1a, 1b, 2c, 2d);
    b. explaining geometric centerline, scrub radius, wheel offset, thrust line, setback, and ride height (1a, 1b, 2c, 2d).
6. Perform a wheel alignment by:
    a. performing a four-wheel alignment (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing a two-wheel alignment (1a, 1b, 2a, 2c, 2d, 2e).
7. Demonstrate an understanding of the purpose and construction of tires and rims by:
    a. identifying tire construction, size, and ratings (1a, 1b, 2c, 2d);
    b. identifying various rim constructions and sizes (1a, 1b, 2c, 2d).
8. Diagnose and repair tire concerns by:
    a. identifying tire wear patterns (1a, 1b, 2a, 2c, 2d, 2e);
    b. measuring tire and rim run out (1a, 1b, 2a, 2c, 2d, 2e);
    c. diagnosing tire inflation problems and tire pressure monitoring systems (1a, 1b, 2a, 2c, 2d, 2e);
    d. repairing tire inflation problems and tire pressure monitoring systems (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating how to mount, balance, and rotate tires (1a, 1b, 2a, 2c, 2d, 2e).
9. Demonstrate an understanding of personal and laboratory safety by:
    a. demonstrating the procedures necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e).

DEMR 1280 - Coop Ed - Diesel Mech Technology/Techn

General

Course Key
14478

Course Rubric	Course Number	Course Title
DEMR	1280	Cooperative Education - Diesel Mechanics Technology/Technician
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
2	1	7

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-7) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Required Prerequisites: DEMR-1301 and DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take DEMR-1301 DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1301 and DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Complete training station agreement (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Complete cooperative work experience objectives worksheet (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Complete objectives listed in the cooperative work experience worksheet (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Be at work on time every day of co-op (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Be in uniform at work (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Call supervisor if unable to be at work for any reason (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DEMR 1301 - Shop Safety and Procedures

General

Course Key
14479

Course Rubric
DEMR

Course Number
1301

Course Title
Shop Safety and Procedures

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A study of shop safety, rules, basic shop tools, and test equipment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and use basic hand tools; use personal protection equipment (PPE); and correctly use and dispose of hazardous materials.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic hand tools by:
    a. identifying hand tools from different tool categories in the shop and classroom assessments (1a, 1b, 2c, 2d, 2e);
    b. choosing the correct hand tools in the shop (1a, 1b, 2c, 2d, 2e);
    c. using hand tools in a safe manner according to industry standards (1a, 1b, 2c, 2d, 2e).
2. Demonstrate an understanding of PPE by:
    a. identifying the equipment in classroom assessments (1a, 1b, 2c, 2d, 2e);
    b. choosing the correct equipment in the shop (1a, 1b, 2c, 2d, 2e);
    c. using the correct equipment in the shop (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of hazardous material disposal by:
    a. identifying and describing hazardous materials (1a, 1b, 2c, 2d, 2e);
    b. explaining disposal methods adopted by industry (1a, 1b, 2c, 2d, 2e);
    c. demonstrating proper handling of hazardous materials (1a, 1b, 2c, 2d, 2e).

DEMR 1305 - Basic Electrical Systems

General

Course Key
14480

Course Rubric
DEMR

Course Number
1305

Course Title
Basic Electrical Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, and batteries. Required Prerequisite: DEMR-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform circuit analysis; identify electrical symbols; use special tools; and test circuits.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of electrical fundamentals by:
    a. reading electrical wiring diagrams and demonstrating 100% accuracy on a multiple choice question assessment (1a, 1b, 2c, 2d, 2e);
    b. measuring electrical circuits utilizing electrical test meters, live vehicles, or simulators and demonstrating 100% accuracy on a multiple choice question assessment (1a, 1b, 2c, 2d, 2e).
2. Demonstrate an understanding of starting systems by:
    a. diagnosing and correcting starter system problems and demonstrating 100% accuracy on a performance checklist (1a, 1b, 2c, 2d, 2e);
    b. reading repair information and successfully completing a starter R&R procedure (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of the charging system by:
    a. diagnosing and correcting charging system problems and demonstrating 100% accuracy on a performance checklist (1a, 1b, 2c, 2d, 2e);
    b. reading repair information and successfully completing an alternator R&R procedure (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of batteries by:
    a. diagnosing and correcting battery problems and demonstrating 100% accuracy on a performance checklist (1a, 1b, 2c, 2d, 2e);
    b. reading repair information and successfully completing a battery R&R procedure (1a, 1b, 2c, 2d, 2e).

DEMR 1306 - Diesel Engine I

General

Course Key
14481

Course Rubric	Course Number	Course Title
DEMR	1306	Diesel Engine I
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) An introduction to the basic principles of diesel engines and systems. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the history of diesel engines and diesel systems and their evolution; demonstrate knowledge of the basic principles of diesel systems and engines and how they function; and utilize precision instruments to diagnose and repair basic systems and engines.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair engine mechanical problems by:
    a. demonstrating the ability to diagnose engine noises and evaluate engine condition (1a, 1b, 2c, 2d, 2e);
    b. disassembling an engine (1a, 1b, 2c, 2d, 2e);
    c. inspecting engine components visually for wear and damage (1a, 1b, 2c, 2d, 2e);
    d. using precision measuring instruments to determine wear (1a, 1b, 2c, 2d, 2e).
2. Assemble an engine using appropriate tools and specifications by:
    a. assembling an engine (1a, 1b, 2c, 2d, 2e);
    b. utilizing special tools and manufacturer's specifications (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to diagnose and repair cooling and lubrication systems by:
    a. diagnosing cooling systems and lubrication systems (1a, 1b, 2c, 2d, 2e);
    b. repairing cooling systems and lubrication systems (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of personal and laboratory safety by:
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

DEMR 1316 - Basic Hydraulics

General

Course Key
14482

Course Rubric	Course Number	Course Title
DEMR	1316	Basic Hydraulics
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Fundamentals of hydraulics including components and related systems. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify various components used in hydraulic systems; evaluate hydraulic components by inspection and testing; and explain hydraulics, theory, circuits, and application.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic concepts of fluid power by:
    a. defining fluid power (1a, 1b, 2c);
    b. differentiating between the terms "hydraulics" and "pneumatics" (1a, 1b, 2a, 2c, 2e);
    c. explaining the history of the fluid power industry (1a, 1b, 2a, 2c, 2e);
    d. specifying the basic components of fluid power systems (1a, 1b, 2c, 2d, 2e);
    e. identifying the categories of personnel who are employed in the fluid power industry (1a, 1b, 2a, 2c, 2d, 2e).
2. Apply the physical properties of hydraulic fluids to hydraulic systems by:
    a. defining the term "fluid" (1a, 1b, 2c, 2e);
    b. defining the terms "specific weight," "density," and "specific gravity" (1a, 1b, 2c);
    c. defining the terms "pressure," "head," and "force" (1a, 1b, 2c, 2d, 2e);
    d. differentiating between gauge pressure and absolute pressure (1a, 1b, 2a, 2d, 2e);
    e. calculating the force created by a pressure (1a, 1b, 2a, 2c, 2e);
    f. converting viscosity from one set of units to another (1a, 1b, 2a, 2c, 2d, 2e);
    g. explaining the difference between viscosity and viscosity index (1a, 1b, 2a, 2c).
3. Perform maintenance procedures on hydraulic systems by:
    a. identifying the common causes of hydraulic system failures (1a, 1b, 2a, 2c, 2d, 2e);
    b. discussing the various types of fire and foam resistance fluids (1a, 1b, 2a, 2c, 2d);
    c. explaining the neutralization number of a hydraulic fluid (1a, 1b, 2c, 2d, 2e);
    d. describing the operation of filters and strainers and specifying their location in hydraulic circuits (1a, 1b, 2c, 2d, 2e);
    e. calculating the beta ratio and beta efficiency of filters (1a, 1b, 2c, 2d, 2e);
    f. explaining the mechanism of the wear of moving parts of hydraulic components due to solid particle contamination of the fluid (1a, 1b, 2a, 2c, 2d, 2e);
    g. describing the problems caused by gases in hydraulic fluids (1a, 1b, 2a, 2c, 2d, 2e);
    h. explaining how to troubleshoot fluid power circuits effectively depending on the symptoms of the problems involved (1a, 1b, 2a, 2c, 2d, 2e).

DEMR 1317 - Basic Brake Systems

General

Course Key
14483

Course Rubric	Course Number	Course Title
DEMR	1317	Basic Brake Systems

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Basic principles of brake systems of diesel powered equipment. Emphasis on maintenance, repairs, and troubleshooting. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate the basic theory and operation of the brake systems; diagnose brake components for wear and usability; repair brake components by rebuilding or replacing parts; and adjust brake components.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and service hydraulic components related to the braking system by:
    a. demonstrating the ability to diagnose and service the master cylinder (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and bleed air from hydraulic system (1a, 1b, 2c, 2e);
    c. demonstrating the ability to diagnose and service hydraulic valves (1a, 1b, 2c, 2e);
    d. servicing brake hydraulic hoses and lines (1a, 1b, 2c, 2e).
2. Demonstrate the ability to diagnose and service disc brakes by:
    a. diagnosing disc brake failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul disc brakes (1a, 1b, 2c, 2e);
    c. servicing machine brake rotors (1a, 1b, 2c, 2e);
    d. measuring disc brake components using precision measuring tools (1a, 1b, 2c, 2e).
3. Demonstrate the ability to diagnose and service drum brakes by:
    a. diagnosing drum brake failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul drum brakes (1a, 1b, 2c, 2e);
    c. servicing machine brake drums (1a, 1b, 2c, 2e);
    d. measuring drum brake components using precision measuring tools (1a, 1b, 2c, 2e).
4. Demonstrate the ability to diagnose and service antilock brakes by:
    a. diagnosing antilock brake system failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul antilock brake systems (1a, 1b, 2c, 2e);
    c. retrieving diagnostic data for antilock brake systems (1a, 1b, 2c, 2e).
5. Demonstrate the ability to diagnose and service power assist systems by:
    a. diagnosing power assist system failures (1a, 1b, 2c, 2e);
    b. demonstrating the ability to service and overhaul power assist systems (1a, 1b, 2c, 2e).
6. Demonstrate the ability to diagnose and service parking brake systems by:
    a. diagnosing parking brake system failures (1a, 1b, 2c, 2e);
    b. repairing parking brake systems (1a, 1b, 2c, 2e);
    c. adjusting parking brakes (1a, 1b, 2c, 2e).
7. Apply the use of computerized repair information by:
    a. locating computer-based service information (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. searching databases for technical service bulletins (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. searching for brake system specifications (1a, 1b, 2a, 2b, 2c, 2d, 2e).
8. Demonstrate an understanding of personal laboratory safety by:
    a. explaining the practices necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the laboratory (1b, 1c, 2a, 2e).

DEMR 1321 - Power Train I

General

Course Key
14484

Course Rubric
DEMR

Course Number
1321

Course Title
Power Train I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Fundamental repair and theory of power trains including clutches, transmissions, drive shafts, and differentials. Emphasis on inspection and repair. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform visual inspection of components; determine serviceability of components; and disassemble and reassemble power train components.

Upon successful completion of this course, students will:

1. Demonstrate the ability to diagnose and repair manual clutch components by:
    a. diagnosing hydraulic clutch systems, linkage type clutch systems, clutches, pressure plates, throw out bearings, pilot bearings, and flywheels (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing hydraulic clutch systems, linkage type clutch systems, clutches, pressure plates, throw out bearings, pilot bearings, and flywheels (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate the ability to diagnose and repair drive lines by:
    a. diagnosing a drive shaft and a constant velocity joint (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing a drive shaft and a constant velocity joint (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate the ability to diagnose and repair a manual transmission by:
    a. diagnosing transmission noises and shift concerns (1a, 1b, 2a, 2c, 2d, 2e);
    b. diagnosing internal transmission failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    c. repairing internal transmission failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    d. diagnosing transmission leaks (1a, 1b, 2a, 2c, 2d, 2e);
    e. repairing transmission leaks (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate the ability to diagnose and repair a drive axle by:
    a. diagnosing drive axle noises and axle leaks (1a, 1b, 2a, 2c, 2d, 2e);
    b. repairing drive axle noises and axle leaks (1a, 1b, 2a, 2c, 2d, 2e);
    c. diagnosing drive axle failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e);
    d. repairing drive axle failures to manufacturer's specifications (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of personal and laboratory safety by:
    a. explaining the procedures necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

DEMR 1323 - HVAC Troubleshooting and Repair

General

Course Key
14485

Course Rubric
DEMR

Course Number
1323

Course Title
Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze heating, ventilation, and air conditioning systems; utilize specialized tools; and repair or replace components.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of heating and air conditioning concerns by:
    a. demonstrating the ability to diagnose and repair AC compressor failures (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing an AC performance test (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the ability to diagnose and repair AC refrigerant leaks using appropriate equipment (1a, 1b, 2a, 2c, 2d, 2e);
    d. demonstrating the ability to diagnose refrigerant pressure readings and determine necessary action (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating the ability to diagnose and repair system component failures (1a, 1b, 2a, 2c, 2d, 2e);
    f. demonstrating the ability to evacuate, recharge, add oil, and leak check AC system (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of the proper use of AC test equipment by:
    a. using electrical wiring diagrams to diagnose and test circuits (1a, 1b, 2a, 2c, 2d, 2e);
    b. using manifold gauge sets (1a, 1b, 2a, 2c, 2d, 2e);
    c. using refrigerant recovery and recycling equipment (1a, 1b, 2a, 2c, 2d, 2e);
    d. using electronic leak detectors (1a, 1b, 2a, 2c, 2d, 2e);
    e. using refrigerant identifiers (1a, 1b, 2a, 2c, 2d, 2e);
    f. installing refrigerant dye and identifying leaks (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of personal and laboratory safety by:
    a. explaining the procedures necessary to ensure a minimal chance of personal injury or property damage (1b, 1c, 2a, 2e);
    b. practicing proper safety procedures in the classroom and laboratory (1b, 1c, 2a, 2e).

DEMR 1327 - Tractor Trailer Service and Repair

General

Course Key
14486

Course Rubric
DEMR

Course Number
1327

Course Title
Tractor Trailer Service and Repair

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) An introduction to and familiarization with components and systems related to tractor trailer service. Emphasis on records required by the Department of Transportation. Required Prerequisite: DEMR-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take DEMR-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DEMR 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Inspect vehicles and make necessary repairs to the tractor or trailer to Department of Transportation standard; and complete Department of Transportation documentation using appropriate forms and procedures.

Upon successful completion of this course, students will:

1. Identify tire and wheel types, identify wheel ends and proper service procedures for wheel end service (1a, 1b, 2c, 2d, 2e).
2. Perform wheel hub adjustments on the vehicle (1a, 1b, 2c, 2d, 2e).
3. Perform tire and wheel removal and dismounting of tires from the wheel (1a, 1b, 2c, 2d, 2e).
4. Perform tire and wheel inspections to identify OOS conditions (1a, 1b, 2c, 2d, 2e).
5. Identify frame types and design of vehicle chassis frames (1a, 1b, 2c, 2d, 2e).
6. Identify proper servicing procedures for truck frames (1a, 1b, 2c, 2d, 2e).
7. Perform frame alignment checks, and inspection for damage (1a, 1b, 2c, 2d, 2e).
8. Identify trailer types and designs and trailer train configurations (1a, 1b, 2c, 2d, 2e).
9. Perform trailer inspections to State and Federal guidelines (1a, 1b, 2c, 2d, 2e).
10. Identify fifth wheel manufacturers and different locking designs (1a, 1b, 2c, 2d, 2e).
11. Perform fifth wheel disassembly and inspection procedures to identify problems (1a, 1b, 2c, 2d, 2e).

DFTG 1305 - Introduction to Technical Drawing

General

Course Key
14749

Course Rubric
DFTG

Course Number
1305

Course Title
Introduction to Technical Drawing

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) An introduction to reading, interpreting, and developing technical drawings, including the principles of drafting and computer-aided design.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Read, interpret, and develop technical sketches and drawings, lettering techniques, annotations, scales, line types, line weights, geometric construction, orthographic projections, pictorial views, sectional views, dimension drawings, calculations, and measurements. Identify terminology and basic functions used with 2D and 3D computer-aided design software.

Upon successful completion of this course, students will:

1. Identify technical drafting terminology, tools, and symbols by:
    a. describing manufacturing and design processes (1a, 1b, 2d);
    b. outlining the methods of drawing reproduction (1a, 1b, 2d);
    c. describing fractional, decimal, and metric dimensions (1a, 1b, 2d);
    d. listing standard drafting symbols (1a, 1b, 2d);
    e. naming the standard line types (1a, 1b, 2d);
    f. describing projection methods (1a, 1b, 2d);
    g. selecting the various modes of viewing drawings (1a, 1b, 2d);
    h. identifying threads, fasteners, and springs (1a, 1b, 2d);
    i. defining geometric dimensioning and tolerancing (1a, 1b, 2d);
    j. listing the parts of an assembly drawing (1a, 1b, 2d);
    k. identifying weld symbols (1a, 1b, 2d).
2. Produce hand sketches by:
    a. applying sketching techniques (1a, 1b, 2d, 2e);
    b. displaying proper lettering techniques (1a, 1b, 2d, 2e);
    c. using geometric constructions (1a, 1b, 2d, 2e);
    d. illustrating multi view projection (1a, 1b, 2d, 2e);
    e. producing sectional and auxiliary views (1a, 1b, 2d, 2e).
3. Use drafting principles by:
    a. producing a projection of normal, inclined, and oblique surfaces (1a, 1b, 2d, 2e);
    b. demonstrating drawing conventions for machine processes (1a, 1b, 2d, 2e);
    c. relating the concept of first and third angle projections (1a, 1b, 2d, 2e);
    d. constructing depth, height, or width auxiliary views (1a, 1b, 2d, 2e);
    e. using conventional dimensioning techniques to describe size and shape accurately (1a, 1b, 2d, 2e);
    f. identifying aligned and unidirectional dimensioning systems (1a, 1b, 2d, 2e);
    g. producing geometric dimensioning and tolerancing symbols (1a, 1b, 2d, 2e).
4. Create drawings on a CAD system by:
    a. producing CAD drawings from hand sketch exercises (1a, 1b, 2d, 2e);
    b. creating geometric constructions (1a, 1b, 2d, 2e);
    c. generating projected mechanical drawings (1a, 1b, 2d, 2e);
    d. producing 3 dimensional parametric model drawings (1a, 1b, 2d, 2e);
    e. completing drawing exercises on auxiliary views (1a, 1b, 2d, 2e);
    f. constructing sectional views (1a, 1b, 2d, 2e);
    g. producing detailed assembly drawings (1a, 1b, 2d, 2e);
    h. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
5. Complete final documents by:
    a. summarizing the language of drafting (1a, 1b, 2d, 2e);
    b. composing final drawings (1a, 1b, 2d, 2e);
    c. justifying correct drafting principles (1a, 1b, 2d, 2e).

DFTG 1409 - Basic Computer-Aided Drafting

General

Course Key
13586

Course Rubric	Course Number	Course Title
DFTG	1409	Basic Computer-Aided Drafting
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale. Required Prerequisite: DFTG-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take dftg-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify terminology and basic functions used with CAD software; use CAD hardware and software to create, organize, display, and plot/print working drawings; and use file management techniques.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of computer-aided drafting (CAD) terminology, tools, and symbols by:
    a. defining the Cartesian Coordinate System (1a, 1b, 2d);
    b. describing the menu structure (1a, 1b, 2d);
    c. explaining the differences between type in commands, icons, and pull down menus (1a, 1b, 2d);
    d. identifying the standard draw commands (1a, 1b, 2d);
    e. giving examples of modifying commands (1a, 1b, 2d);
    f. selecting the various modes of viewing drawings (1a, 1b, 2d);
    g. defining a dimension style (1a, 1b, 2d).
2. Produce hand sketches by:
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. describing proper drafting techniques (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of various commands in a CAD system by:
    a. operating CAD software (1a, 1b, 2d, 2e);
    b. demonstrating draw commands (1a, 1b, 2d, 2e);
    c. modifying drawn objects (1a, 1b, 2d, 2e);
    d. demonstrating the ability to create 3D objects (1a, 1b, 2d, 2e);
    e. preparing examples of blocks (1a, 1b, 2d, 2e);
    f. manipulating an external reference or file (1a, 1b, 2d, 2e);
    g. demonstrating the ability to import information from a different software program into a CAD system (1a, 1b, 2d, 2e);
    h. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
4. Create drawings on a CAD system by:
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating projected mechanical drawings (1a, 1b, 2d, 2e);
    c. producing a draft of an architectural floor plan (1a, 1b, 2d, 2e);
    d. diagramming an electrical circuit board (1a, 1b, 2d, 2e);
    e. producing CAD drawings from civil engineering information (1a, 1b, 2d, 2e);
    f. completing 3D parametric models (1a, 1b, 2d, 2e);
    g. organizing a complex assembly (1a, 1b, 2d, 2e).
5. Complete final documents by:
    a. summarizing CAD skills (1a, 1b, 2d, 2e);
    b. comparing the various methods of drawing solids (1a, 1b, 2d, 2e);
    c. composing final drawings (1a, 1b, 2d, 2e);
    d. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 1417 - Architectural Drafting-Residential

General

Course Key
13588

Course Rubric	Course Number	Course Title
DFTG	1417	Architectural Drafting-Residential
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Preparation of architectural drawings for residential structures with emphasis on light frame construction methods, including architectural drafting procedures, practices, terms, and symbols. Required Prerequisite: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize architectural terms, symbols, residential construction materials, and processes to produce a set of residential construction drawings including site plan, floor plan, elevations, wall sections, schedules, details, and foundation plan using reference materials.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of architectural terminology, practices, and project phases by:
    a. defining the term anthropometrics (1a, 1b, 2d, 2e);
    b. identifying the phases of an architectural project (1a, 1b, 2d, 2e);
    c. describing the basic relationship between Owner/Architect/Contractor (1a, 1b, 2d, 2e);
    d. describing the role of an architect (1a, 1b, 2d, 2e).
2. Prepare a program for an architectural residential project by:
    a. identifying functions of space (1a, 1b, 2d, 2e);
    b. measuring current living space (1a, 1b, 2d, 2e);
    c. listing required spaces by priority (1a, 1b, 2d, 2e);
    d. determining the square footage of each space (1a, 1b, 2d, 2e).
3. Produce a schematic design by:
    a. using the information from the programming phase of the architectural project (1a, 1b, 2d, 2e);
    b. producing a drawing of spaces to scale on a computer-aided drafting (CAD) system (1a, 1b, 2d, 2e);
    c. arranging spaces according to their relationships (1a, 1b, 2d, 2e);
    d. diagramming connections between spaces (1a, 1b, 2d, 2e).
4. Generate design development drawings for a house design by:
    a. using the sketches from the schematic design phase (1a, 1b, 2d, 2e);
    b. applying industry standard construction methods to the design (1a, 1b, 2d, 2e);
    c. illustrating rough drawings based on passive solar considerations (1a, 1b, 2d, 2e);
    d. analyzing site information for building placement (1a, 1b, 2d, 2e).
5. Complete final construction documents by:
    a. producing a draft of final floor plans with appropriate materials and methods for construction (1a, 1b, 2d, 2e);
    b. applying civil and structural engineering standards to a foundation/site plan design (1a, 1b, 2d, 2e);
    c. constructing a roof plan based on framing considerations (1a, 1b, 2d, 2e);
    d. illustrating all four exterior elevations with poche (1a, 1b, 2d, 2e).
6. Display ability to publish presentation drawings from the construction documents by:
    a. calibrating the location of a camera based on passive solar sun angles (1a, 1b, 2d, 2e);
    b. producing a final still frame presentation perspective drawing of residence (1a, 1b, 2d, 2e);
    c. producing an animation of a final building walk around of architectural project (1a, 1b, 2d, 2e);
    d. justifying final building project design (1a, 1b, 2d, 2e).

DFTG 1430 - Civil Drafting I

General

Course Key
14593

Course Rubric	Course Number	Course Title
DFTG	1430	Civil Drafting 1
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Preparation of civil drawings including drafting methods and principles used in civil engineering.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Interpret field notes; develop documents for a civil project related to drainage and utilities infrastructure, to include a comprehension of related calculations.

Upon successful completion of this course, students will:

1. Switch between the AutoCAD Civil 3D tools, 2D drafting and annotation tools, 3D modeling tools, and planning and analysis tools by changing the workspace (1a, 1b, 2d, 2e).
2. Locate the basic features and commands of the AutoCAD Civil 3D software interface, which includes the Ribbon, Drawing Window, Command Line, and Toolspaces (1a, 1b, 2d, 2e).
3. Access commands by right clicking on an object or collection of objects in the Prospector and Setting tabs in the Toolspace (1a, 1b, 2d, 2e).
4. Access predetermined reports and create custom reports to be able to share useful engineering data Settings tabs in the Toolspace (1a, 1b, 2d, 2e).
5. Create assign object and label styles to correctly display AutoCAD Civil 3D objects for printing and other purposes (1a, 1b, 2d, 2e).

DFTG 1445 - Parametric Modeling and Design

General

Course Key
13590

Course Rubric
DFTG

Course Number
1445

Course Title
Parametric Modeling and Design

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Parametric-based design software for 3D design and drafting. Required Pre-requisites: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use parametric modeling techniques to create rendered assemblies, orthographic drawings, auxiliary views, and details from 3-dimensional models.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of parametric terminology, tools, and symbols by
    a. defining the view projections used in 3D design (1a, 1b, 2d, 2e);
    b. describing the menu structure (1a, 1b, 2d, 2e);
    c. explaining the differences between type in commands, icons, and pull down menus (1a, 1b, 2d, 2e);
    d. identifying the project browser (1a, 1b, 2d, 2e);
    e. giving examples of modifying commands (1a, 1b, 2d, 2e);
    f. selecting the various modes of viewing drawings (1a, 1b, 2d, 2e);
    g. defining a dimension style (1a, 1b, 2d, 2e).
2. Produce hand sketches by
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. delineating proper drafting techniques (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of various toolbars in the parametric system by
    a. operating 3D software (1a, 1b, 2d, 2e);
    b. demonstrating the various toolbars (1a, 1b, 2d, 2e);
    c. modifying drawn objects (1a, 1b, 2d, 2e);
    d. dimensioning objects (1a, 1b, 2d, 2e);
    e. importing information from a different software program into a CAD system (1a, 1b, 2d, 2e);
    f. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
4. Create three dimensional objects using the 3D system software by
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating three dimensional objects based on mechanical drawings (1a, 1b, 2d, 2e);
    c. generating three dimensional assemblies using three dimensional objects (1a, 1b, 2d, 2e);
    d. generating assembly drawings (1a, 1b, 2d, 2e);
    e. producing two dimensional drawings based on three dimensional objects (1a, 1b, 2d, 2e);
    f. simulating solid object functionality (1a, 1b, 2d, 2e).
5. Complete final documents by
    a. summarizing CAD skills (1a, 1b, 2d, 2e);
    b. comparing the various methods of drawing solids (1a, 1b, 2d, 2e);
    c. composing final drawings (1a, 1b, 2d, 2e);
    d. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 1458 - Electrical/Electronics Drafting

General

Course Key
13592

Course Rubric
DFTG

Course Number
1458

Course Title
Electrical and Electronics Drafting

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Electrical and electronic drawings stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Required Prerequisite: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Layout components and symbols, both electronic and electrical; apply basic math and the theory of electricity; utilize component identification including schematics, block, wiring, and logic; and perform diagram construction and drafting. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the various components in an electrical layout by
    a. describing various electrical layouts (1a, 1b, 2d, 2e);
    b. describing when each layout is used (1a, 1b, 2d, 2e);
    c. describing electrical safety codes (1a, 1b, 2d, 2e).
2. Produce hand sketches by
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. delineating proper drafting techniques (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of various electrical designs and the part CAD systems play in them by
    a. operating CAD software (1a, 1b, 2d, 2e);
    b. drawing block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one line diagrams (1a, 1b, 2d, 2e);
    c. modifying drawn objects (1a, 1b, 2d, 2e);
    d. dimensioning objects (1a, 1b, 2d, 2e);
    e. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
4. Create drawings on a CAD system by
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating projected mechanical drawings (1a, 1b, 2d, 2e);
    c. drafting an architectural or commercial floor plan with electrical data (1a, 1b, 2d, 2e);
    d. organizing a complex assembly (1a, 1b, 2d, 2e).
5. Complete final documents by
    a. summarizing design skills needed to create an electrical design project (1a, 1b, 2d, 2e);
    b. composing final drawings (1a, 1b, 2d, 2e);
    c. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 2402 - Machine Drafting

General

Course Key
13594

Course Rubric
DFTG

Course Number
2402

Course Title
Machine Drafting

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Production of detail and assembly drawings of machines, threads, gears, utilizing tolerances, limit dimensioning, and surface finishes. Required Prerequisite: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Interpret terms used in tolerancing; identify dimensions of two mating parts; draw spur and/or bevel gears; draw details and assemblies; identify interference and clearance fits; identify types of threads forms; and interpret thread notes. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify parametric terminology, tools, and symbols by
    a. defining the view projections used in 3D design (1a, 1b, 2d, 2e);
    b. describing the menu structure (1a, 1b, 2d, 2e);
    c. explaining the differences between type in commands, icons, and pull down menus (1a, 1b, 2d, 2e);
    d. identifying the project browser (1a, 1b, 2d, 2e);
    e. giving examples of modifying commands (1a, 1b, 2d, 2e);
    f. selecting the various modes of viewing drawings (1a, 1b, 2d, 2e);
    g. defining a dimension style (1a, 1b, 2d, 2e).
2. Produce hand sketches by
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. delineating proper drafting techniques (1a, 1b, 2d, 2e).
3. Examine various toolbars in the parametric system by
    a. operating 2D and 3D software (1a, 1b, 2d, 2e);
    b. demonstrating the various toolbars (1a, 1b, 2d, 2e);
    c. modifying drawn objects (1a, 1b, 2d, 2e);
    d. dimensioning objects (1a, 1b, 2d, 2e);
    e. importing information from a different software program into a CAD system (1a, 1b, 2d, 2e);
    f. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
4. Create three dimensional objects using the 3D system software by
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating three dimensional objects based on mechanical drawings (1a, 1b, 2d, 2e);
    c. generating three dimensional assemblies using three dimensional objects (1a, 1b, 2d, 2e);
    d. generating assembly drawings (1a, 1b, 2d, 2e);
    e. producing two dimensional drawings based on three dimensional objects (1a, 1b, 2d, 2e);
    f. simulating solid object functionality (1a, 1b, 2d, 2e);
    g. identifying dimensions of two mating parts (1a, 1b, 2d, 2e);
    h. drawing spur and/or bevel gears (1a, 1b, 2d, 2e);

i. identifying interference and clearance fits (1a, 1b, 2d, 2e);

j. interpreting thread forms and notes (1a, 1b, 2d, 2e).

5. Complete final documents by

a. summarizing CAD skills (1a, 1b, 2d, 2e);

b. comparing the various methods of drawing solids (1a, 1b, 2d, 2e);

c. composing final drawings (1a, 1b, 2d, 2e);

d. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 2419 - Intermediate Computer-Aided Drafting

General

Course Key
13596

Course Rubric
DFTG

Course Number
2419

Course Title
Intermediate Computer-Aided Drafting

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A continuation of practices and techniques in computer-aided design including the development and use of prototype drawings, construction of pictorial drawings, extracting data, and basics of 3D. Required Pre-requisites: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Produce 2D and 3D drawings, pictorial drawings; use external referencing of multiple drawings to construct a composite drawing; and import and extract data utilizing attributes. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Demonstrate an understanding of computer-aided drafting (CAD) terminology, tools, and symbols by

a. defining the Cartesian Coordinate System (1a, 1b, 2d, 2e);

b. describing the menu structure (1a, 1b, 2d, 2e);

c. explaining the differences between type in commands, icons, and pull down menus (1a, 1b, 2d, 2e);

d. identifying the standard draw commands (1a, 1b, 2d, 2e);

e. giving examples of modifying commands (1a, 1b, 2d, 2e);

f. selecting the various modes of viewing drawings (1a, 1b, 2d, 2e);

g. defining a dimension style (1a, 1b, 2d, 2e).

2. Produce hand sketches by

a. sketching assignments (1a, 1b, 2d, 2e);

b. using graphic descriptions (1a, 1b, 2d, 2e);

c. illustrating methods of projection (1a, 1b, 2d, 2e);

d. describing proper drafting techniques (1a, 1b, 2d, 2e).

3. Demonstrate an understanding of various commands in a CAD system by

a. operating CAD software (1a, 1b, 2d, 2e);

b. demonstrating draw commands (1a, 1b, 2d, 2e);

c. modifying drawn objects (1a, 1b, 2d, 2e);

d. demonstrating the ability to create 3D objects (1a, 1b, 2d, 2e);

e. preparing examples of blocks (1a, 1b, 2d, 2e);

f. manipulating an external reference or file (1a, 1b, 2d, 2e);

g. demonstrating the ability to import information from a different software program into a CAD system (1a, 1b, 2d, 2e);

h. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).

4. Create drawings on a CAD system by

a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);

b. generating projected mechanical drawings (1a, 1b, 2d, 2e);

c. generating drawings with external references (1a, 1b, 2d, 2e);

d. generating 3D objects (1a, 1b, 2d, 2e);

e. completing 3D parametric models (1a, 1b, 2d, 2e);

f. organizing a complex assembly (1a, 1b, 2d, 2e).

5. Complete final documents by
    a. summarizing CAD skills (1a, 1b, 2d, 2e);
    b. comparing the various methods of drawing solids (1a, 1b, 2d, 2e);
    c. composing final drawings (1a, 1b, 2d, 2e);
    d. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 2421 - Topographical Drafting

General

Course Key
13599

Course Rubric	Course Number	Course Title
DFTG	2421	Topographical Drafting

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses. Required Prerequisite: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Interpret survey data and topographic symbols; and produce topographical drawings. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify topographical terminology, tools, and symbols by
    a. defining cartography (1a, 1b, 2a, 2c, 2e);
    b. listing types of maps (1a, 1b, 2a, 2c, 2e);
    c. naming map scales (1a, 1b, 2a, 2c, 2e);
    d. describing the units of measure in civil engineering (1a, 1b, 2a, 2c, 2e);
    e. identifying topographic symbols (1a, 1b, 2a, 2c, 2e);
    f. matching the appropriate survey equipment with its function (1a, 1b, 2a, 2c, 2e);
    g. defining stationing (1a, 1b, 2a, 2c, 2e).
2. Examine various methods of surveying by
    a. describing the great survey (1a, 1b, 2a, 2c, 2e);
    b. defining survey types (1a, 1b, 2a, 2c, 2e);
    c. identifying contour lines (1a, 1b, 2a, 2c, 2e);
    d. describing the surveying process (1a, 1b, 2a, 2c, 2e).
3. Produce drawings based on survey field notes by
    a. operating survey equipment (1a, 1b, 2a, 2c, 2e);
    b. using CAD systems (1a, 1b, 2a, 2c, 2e);
    c. recording balanced latitudes and departures (1a, 1b, 2a, 2c, 2e);
    d. calculating acreage from survey field notes (1a, 1b, 2a, 2c, 2e);
    e. producing CAD drawings of surveys (1a, 1b, 2a, 2c, 2e).
4. Create CAD drawings of profiles and plat maps by
    a. completing a CAD profile drawing (1a, 1b, 2a, 2c, 2e);
    b. determining grade and slope (1a, 1b, 2a, 2c, 2e);
    c. calculating vertical scale (1a, 1b, 2a, 2c, 2e);
    d. illustrating a contour map (1a, 1b, 2a, 2c, 2e);
    e. producing a topographical map (1a, 1b, 2a, 2c, 2e).
5. Create CAD drawings of profiles and plat maps by
    a. completing a CAD profile drawing (1a, 1b, 2a, 2c, 2e);
    b. determining grade and slope (1a, 1b, 2a, 2c, 2e);

c. calculating vertical scale (1a, 1b, 2a, 2c, 2e);

d. illustrating a contour map (1a, 1b, 2a, 2c, 2e);

e. producing a topographical map (1a, 1b, 2a, 2c, 2e);

f. completing a CAD profile drawing (1a, 1b, 2a, 2c, 2e).

DFTG 2423 - Pipe Drafting

General

Course Key
13600

Course Rubric
DFTG

Course Number
2423

Course Title
Pipe Drafting

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A study of pipe fittings, symbols, specifications and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. Required Prerequisite: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Create drawings of foundations, structural supports, and process equipment; identify symbols and research specifications; generate a bill of material list; use charts and standards; generate isometric drawings; and calculate measurements for pipe fittings. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of pipe, pipe fittings, and pipe symbols and how they are used in drawings by
    a. describing the various types of pipe and how they are created (1a, 1b, 2d, 2e);
    b. describing the types of fittings used to join pipe (1a, 1b, 2d, 2e);
    c. describing the symbols used to represent pipes and fittings (1a, 1b, 2d, 2e).
2. Produce hand sketches by
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. delineating proper drafting techniques (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of various pipe process systems in a CAD system by
    a. operating CAD software (1a, 1b, 2d, 2e);
    b. demonstrating the drawing of a pipe process plan (1a, 1b, 2d, 2e);
    c. modifying drawn objects (1a, 1b, 2d, 2e);
    d. dimensioning objects (1a, 1b, 2d, 2e);
    e. using the plot command to print or plot drawings.
4. Create drawings on a CAD system by
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating projected mechanical drawings (1a, 1b, 2d, 2e);
    c. drafting an architectural or commercial floor plan with pipe data (1a, 1b, 2d, 2e);
    d. organizing a complex assembly (1a, 1b, 2d, 2e).
5. Complete final documents by
    a. summarizing CAD skills needed to complete the drawing (1a, 1b, 2d, 2e);
    b. composing final drawings (1a, 1b, 2d, 2e);
    c. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 2427 - Landscape Drafting

General

Course Key
13602

Course Rubric	Course Number	Course Title
DFTG	2427	Landscape Drafting
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A study of site planning and landscape design. Required Prerequisites: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform a site analysis; develop a layout for plant materials and site amenities; explain plant material selection; design an irrigation system; apply codes and standards; develop a cost estimate for a landscape project; and develop project specifications. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terminology and practices used in the landscape drafting field by
    a. defining terms such as LEED, indigenous species, transit, planimeter, benchmark, grade, slope, etc., used in the landscape drafting industry (1a, 1b, 2d, 2e);
    b. translating bearings to azimuths and azimuths to bearings when used in property descriptions (1a, 1b, 2d, 2e);
    c. identifying basic equipment used in landscape design (1a, 1b, 2d, 2e);
    d. computing basic site acreage and square footage (1a, 1b, 2d, 2e).
2. Prepare reports and documents for a landscape project by
    a. classifying soil conditions from standard soil survey report (1a, 1b, 2d, 2e);
    b. defining the LEED certification components related to site work (1a, 1b, 2d, 2e);
    c. describing methods of soil stabilization for landscape preparation (1a, 1b, 2d, 2e);
    d. displaying ability to graphically represent methods for protecting landscape from the following: extreme weather conditions, public use of site, and construction work (1a, 1b, 2d, 2e);
    e. displaying ability to document the following site amenities: exterior shade structures, exterior public seating areas, and site lighting (1a, 1b, 2d, 2e).
3. Produce a landscape layout for a commercial facility by
    a. describing standard site plan scales (1a, 1b, 2d, 2e);
    b. displaying basic city requirements graphically for the following: standard parking, handicap accessibility, drive entry/exit, LEED certification parking requirements, island design, landscape requirements, and site lighting (1a, 1b, 2d, 2e).
4. Produce a commercial irrigation plan by
    a. describing standard irrigation equipment (1a, 1b, 2d, 2e);
    b. identifying local indigenous plant species used in landscape design (1a, 1b, 2d, 2e);
    c. computing water flow utilizing standard charts for irrigation design (1a, 1b, 2d, 2e);
    d. using the species, equipment information, and water charts to design an irrigation system (1a, 1b, 2d, 2e).
5. Generate a cost estimate from standard drawings for a landscape design by
    a. using the drawing from the irrigation design (1a, 1b, 2d, 2e);
    b. applying industry standard construction estimates to the design (1a, 1b, 2d, 2e);
    c. illustrating spreadsheets based on cost estimates using a standard cost means report (1a, 1b, 2d, 2e);
    d. analyzing the feasibility of the project based on industry standards (1a, 1b, 2d, 2e).
6. Complete final documents by
    a. displaying ability to draft final landscape plans with appropriate materials and methods for completion (1a, 1b, 2d, 2e);
    b. applying LEED certified environmental components to landscape design (1a, 1b, 2d, 2e);
    c. constructing a site plan based on LEED considerations (1a, 1b, 2d, 2e);
    d. illustrating all site work amenities (1a, 1b, 2d, 2e).
7. Display ability to publish presentation landscape drawings by
    a. displaying ability to draw a landscape plan of a commercial facility including all site work (1a, 1b, 2d, 2e);
    b. completing a color coded legend of all plant species (1a, 1b, 2d, 2e);
    c. displaying ability to denote low maintenance plant life, water collection areas, and LEED certified components of drawing (1a, 1b, 2d, 2e);
    d. justifying final landscape project design (1a, 1b, 2d, 2e).

DFTG 2428 - Architectural Drafting - Commercial

General

Course Key
13603

Course Rubric
DFTG

Course Number
2428

Course Title
Architectural Drafting - Commercial

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Preparation of architectural drawings for commercial structures with emphasis on construction methods, including architectural drafting procedures, practices, governing codes, accessibility requirements, terms and symbols. Required Prerequisites: DFTG-1305, DFTG-1409 and DFTG-1417

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409 DFTG-1417;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305, DFTG 1409 and DFTG 1417

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize architectural terms, symbols, commercial construction materials and processes to produce a set of construction drawings including a site plan, floor plans, reflected ceiling plans, sections, elevations, schedules, and details. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of architectural terminology, practices, and project phases by
    a. defining the term anthropometrics (1a, 1b, 2d, 2e);
    b. identifying the phases of an architectural project (1a, 1b, 2d, 2e);
    c. describing the basic relationship between Owner/Architect/Contractor (1a, 1b, 2d, 2e);
    d. describing the role of an architect (1a, 1b, 2d, 2e).
2. Prepare a program for an architectural commercial project by
    a. identifying functions of space (1a, 1b, 2d, 2e);
    b. measuring current work space (1a, 1b, 2d, 2e);
    c. listing required spaces by priority (1a, 1b, 2d, 2e);
    d. determining the square footage of each space (1a, 1b, 2d, 2e).
3. Produce a schematic design by
    a. using the information from the programming phase of the architectural project (1a, 1b, 2d, 2e);
    b. producing a drawing of spaces to scale on a CAD system (1a, 1b, 2d, 2e);
    c. arranging spaces according to their relationships (1a, 1b, 2d, 2e);
    d. diagramming connections between spaces (1a, 1b, 2d, 2e).
4. Generate design development drawings for a commercial design by
    a. using the sketches from the schematic design phase (1a, 1b, 2d, 2e);
    b. applying industry standard construction methods to the design (1a, 1b, 2d, 2e);
    c. illustrating rough drawings based on passive solar considerations (1a, 1b, 2d, 2e);
    d. analyzing site information for building placement (1a, 1b, 2d, 2e).
5. Complete final construction documents by
    a. producing a draft of final floor plans with appropriate materials and methods for construction (1a, 1b, 2d, 2e);
    b. applying civil and structural engineering standards to a foundation/site plan design (1a, 1b, 2d, 2e);
    c. constructing a roof plan based on framing considerations (1a, 1b, 2d, 2e);
    d. illustrating all four exterior elevations with poche (1a, 1b, 2d, 2e).
6. Display ability to publish presentation drawings from the construction documents by
    a. calibrating the location of a camera based on passive solar sun angles (1a, 1b, 2d, 2e);
    b. producing a final still frame presentation perspective drawing of residence (1a, 1b, 2d, 2e);
    c. producing an animation of a final building walk around of architectural project (1a, 1b, 2d, 2e);
    d. justifying final building project design (1a, 1b, 2d, 2e).

DFTG 2431 - Advanced Technologies/Design & Drafting

General

Course Key
13606

Course Rubric	Course Number	Course Title
DFTG	2431	Advanced Technologies in Architectural Design and Drafting

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture. Required Prerequisites: DFTG-1305 DFTG-1409 DFTG-1417 and DFTG-2428

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409 DFTG-1417 DFTG-2428;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 DFTG 1409 DFTG 1417 and DFTG 2428

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use architectural techniques to design, assemble, evaluate, and render architectural building components; develop plan and elevation drawings and details from three-dimensional architectural models. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of Revit terminology, tools, and symbols by
    a. defining the elevation systems used in Revit (1a, 1b, 2d, 2e);
    b. describing the menu structure (1a, 1b, 2d, 2e);
    c. explaining the differences between type in commands, icons, and pull down menus (1a, 1b, 2d, 2e);
    d. identifying the project browser (1a, 1b, 2d, 2e);
    e. giving examples of modifying commands (1a, 1b, 2d, 2e);
    f. selecting the various modes of viewing drawings (1a, 1b, 2d, 2e);
    g. defining a dimension style (1a, 1b, 2d, 2e).
2. Produce hand sketches by
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. displaying ability to delineate proper drafting techniques (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of various toolbars in the Revit system by
    a. operating Revit software (1a, 1b, 2d, 2e);
    b. demonstrating the various toolbars (1a, 1b, 2d, 2e);
    c. modifying drawn objects (1a, 1b, 2d, 2e);
    d. creating three dimensional objects (1a, 1b, 2d, 2e);
    e. displaying ability to import information from a different software program into a CAD system (1a, 1b, 2d, 2e);
    f. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
4. Create architectural drawings using the Revit system by
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating projected mechanical drawings (1a, 1b, 2d, 2e);
    c. displaying ability to draft an architectural floor plan (1a, 1b, 2d, 2e);
    d. diagramming an electrical circuit board (1a, 1b, 2d, 2e);
    e. producing site drawings from civil engineering information (1a, 1b, 2d, 2e);
    f. completing three dimensional parametric models (1a, 1b, 2d, 2e).
5. Complete final documents by
    a. summarizing CAD skills (1a, 1b, 2d, 2e);
    b. comparing the various methods of drawing solids (1a, 1b, 2d, 2e);
    c. composing final drawings (1a, 1b, 2d, 2e);
    d. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 2438 - Final Project - Advanced Drafting

General

Course Key
14761

Course Rubric
DFTG

Course Number
2438

Course Title
Final Project - Advanced Drafting

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) An advanced course in which students produce a comprehensive project from conception to conclusion. Required Prerequisites: DFTG-1305, DFTG-1409, DFTG-1417, DFTG-2421, DFTG-2428, and DFTG-2440

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take DFTG-1305(10522) DFTG-1409(13586) DFTG-1417(13588) DFTG-2421(13599) DFTG-2428(13603) DFTG-2440(207);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305, DFTG 1409, DFTG 1417, DFTG 2421, DFTG 2428, and DFTG 2440

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Conceptualize, design and present a complete project/portfolio in a prescribed discipline. Integrate problem solving and related technologies to identify solutions; use discipline-specific industry standards, and produce documentation. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the discipline that the project will define by
    a. identifying the discipline (1a, 1b, 2d, 2e);
    b. gathering information (1a, 1b, 2d, 2e);
    c. combining information into preliminary definition (1a, 1b, 2d, 2e);
    d. preparing a progress report (1a, 1b, 2d, 2e).
2. Generate solutions through synthesis by
    a. generating solution ideas (1a, 1b, 2d, 2e);
    b. using systematic techniques (1a, 1b, 2d, 2e);
    c. using creative techniques and attitudes (1a, 1b, 2d, 2e).
3. Evaluate alternative solution ideas using analysis by
    a. preparing solution ideas for analysis (1a, 1b, 2d, 2e);
    b. comparing solution alternatives to constraints and specifications (1a, 1b, 2d, 2e);
    c. conducting a design review (1a, 1b, 2d, 2e);
    d. refining the final solution (1a, 1b, 2d, 2e).
4. Document, specify, and communicate the solution by
    a. preparing drawings (1a, 1b, 2d, 2e);
    b. preparing a written report (1a, 1b, 2d, 2e);
    c. giving an oral presentation (1a, 1b, 2d, 2e).
5. Develop, manufacture, and deliver the results of the project by
    a. preparing technical detail drawings of each component to be manufactured (1a, 1b, 2d, 2e);
    b. scheduling assembly, final testing, packaging, and delivery (1a, 1b, 2d, 2e);
    c. keeping all records of the project (1a, 1b, 2d, 2e).

DFTG 2440 - Solid Modeling/Design

General

Course Key
13608

Course Rubric
DFTG

Course Number
2440

Course Title
Solid Modeling and Design

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Required Prerequisite: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Create three dimensional solid model objects; and generate pictorial and orthographic drawings. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of Solidworks terminology, tools, and symbols by
    a. defining the view projections used in Solidworks (1a, 1b, 2d, 2e);
    b. describing the menu structure (1a, 1b, 2d, 2e);
    c. explaining the differences between type in commands, icons, and pull down menus (1a, 1b, 2d, 2e);
    d. identifying the project browser (1a, 1b, 2d, 2e);
    e. giving examples of modifying commands (1a, 1b, 2d, 2e);
    f. selecting the various modes of viewing drawings (1a, 1b, 2d, 2e);
    g. defining a dimension style (1a, 1b, 2d, 2e).
2. Produce hand sketches by
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. disclosing proper drafting techniques (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of various toolbars in the Solidworks system by
    a. operating Solidworks software (1a, 1b, 2d, 2e);
    b. demonstrating the various toolbars (1a, 1b, 2d, 2e);
    c. modifying drawn objects (1a, 1b, 2d, 2e);
    d. creating three dimension objects (1a, 1b, 2d, 2e);
    e. displaying ability to import information from a different software program into a CAD system (1a, 1b, 2d, 2e);
    f. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
4. Create three dimensional objects using the Solidworks system by
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating three dimensional objects based on mechanical drawings (1a, 1b, 2d, 2e);
    c. generating three dimensional assemblies using three dimensional objects (1a, 1b, 2d, 2e);
    d. generating assembly drawings (1a, 1b, 2d, 2e);
    e. producing two dimensional drawings based on three dimensional objects (1a, 1b, 2d, 2e);
    f. displaying ability to simulate solid object functionality (1a, 1b, 2d, 2e).
5. Complete final documents by

a. summarizing CAD skills (1a, 1b, 2d, 2e);

b. comparing the various methods of drawing solids (1a, 1b, 2d, 2e);

c. composing final drawings (1a, 1b, 2d, 2e);

d. justifying correct drawing methods (1a, 1b, 2d, 2e).

DFTG 2458 - Advanced Machine Design

General

Course Key
13609

Course Rubric	Course Number	Course Title
DFTG	2458	Advanced Machine Design

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Design process skills for the production of complete design package, including jig and fixture design, extrusion dies, and injection mold design. Required Prerequisite: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze design problems and prepare solutions to complete a set of drawings. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the various steps involved in successful design projects by
    a. describing the theory of design (1a, 1b, 2d, 2e);
    b. describing the steps involved in a design project (1a, 1b, 2d, 2e);
    c. describing symbols and terminology used in design projects (1a, 1b, 2d, 2e).
2. Produce hand sketches by
    a. sketching assignments (1a, 1b, 2d, 2e);
    b. using graphic descriptions (1a, 1b, 2d, 2e);
    c. illustrating methods of projection (1a, 1b, 2d, 2e);
    d. delineating proper drafting techniques (1a, 1b, 2d, 2e).
3. Examine various design projects and the part CAD systems play in them by
    a. operating CAD software (1a, 1b, 2d, 2e);
    b. modifying drawn objects (1a, 1b, 2d, 2e);
    c. dimensioning objects (1a, 1b, 2d, 2e);
    d. using the plot command to print or plot drawings (1a, 1b, 2d, 2e).
4. Create drawings on a CAD system by
    a. relating hand sketches to a CAD system (1a, 1b, 2d, 2e);
    b. generating projected mechanical drawings (1a, 1b, 2d, 2e);
    c. organizing a complex assembly (1a, 1b, 2d, 2e).
5. Complete final documents by
    a. summarizing design skills needed to create a machine designed project (1a, 1b, 2d, 2e);
    b. composing final drawings (1a, 1b, 2d, 2e);
    c. justifying correct drawings methods (1a, 1b, 2d, 2e).

DHYG 1207 - General and Dental Nutrition

General

Course Key
227

Course Rubric
DHYG

Course Number
1207

Course Title
General and Dental Nutrition

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) General nutrition and nutritional biochemistry emphasizing the effect nutrition has on oral health.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain general nutritional requirements and deficiencies within the human body; analyze dietary records and apply nutritional counseling strategies to optimize oral health.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the general nutritional requirements, deficiencies, and major biochemical reactions within the human body by:
    a. stating general requirements (1a, 1b, 2c);
    b. listing the various deficiencies (1a, 1b, 2c);
    c. stating the major biochemical reactions and how they impact dental health (1a, 1b, 2c).
2. Demonstrate the ability to interpret and analyze dietary records by:
    a. analyzing a diet with respect to oral implications (1a, 1b, 2b, 2c);
    b. identifying and counseling clients regarding various disease states to optimize oral health (1a, 1b, 2b).

DHYG 1215 - Community Dentistry

General

Course Key
8822

Course Rubric
DHYG

Course Number
1215

Course Title
Community Dentistry

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation including methods and materials used in teaching dental health education in various community settings.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design a community dental health educational program that meets the needs of a target population; differentiate the governmental, sociological, environmental, and cultural concerns of the community; and describe the principles and concepts of community dental health education and evaluation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the design of a dental hygiene program that meets the needs of a target population by:
    a. performing an original community oral health presentation utilizing computer generated paper and prepared poster and covering assessment, planning, implementation, and evaluation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate an understanding of the different governmental, sociological, environmental, and cultural concerns of a community by:
    a. defining dental public health and all the supporting agencies (1a, 1b);
    b. describing the internal and external factors and how they play a role in perception of dental services (1a, 1b, 1c, 2b, 2c).

DHYG 1219 - Dental Materials

General

Course Key
11078

Course Rubric
DHYG

Course Number
1219

Course Title
Dental Materials

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Differentiate between the various types of dental materials and their respective properties; and manipulate materials used in dentistry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the various types of dental materials and their respective properties by:
    a. defining assigned terminology (1a, 1b, 2c);
    b. differentiating oral environment limitations and dental materials (1a, 1b, 2c);
    c. comparing and contrasting dental materials (1a, 1b, 2c).
2. Demonstrate the manipulation of materials used in dentistry by:
    a. preparing a dental impression (1a, 1b, 2c, 2e);
    b. preparing study models (1a, 1b, 2c, 2e);
    c. preparing bleaching trays/mouthguard (1a, 1b, 2c, 2e);
    d. performing restoration polishing (1a, 1b, 2c, 2e);
    e. demonstrating placement of rubber dam (1a, 1b, 2c, 2e).

DHYG 1227 - Preventive Dental Hygiene Care

General

Course Key
11863

Course Rubric
DHYG

Course Number
1227

Course Title
Preventive Dental Hygiene Care

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) The role of the dental hygienist as a therapeutic oral health care provider with emphasis on concepts of disease management, health promotion, communication, and behavior modification.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Describe the role of the dental hygienist as a therapeutic oral health care provider; develop and implement a patient education plan for periodontal disease; and explain the concepts of disease management.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the role of the dental hygienist as a therapeutic oral health care provider by:
    a. defining preventive dentistry (1a, 1b, 2c);
    b. explaining the role of the dental hygienist in the teaching/learning process as it relates to a dental hygiene patient (1a, 1b, 2c).
2. Demonstrate an understanding of the concepts of dental disease prevention and health promotion by:
    a. defining the biofilm related dental diseases (1a, 1b, 2c);
    b. identifying interventions and treatments for biofilm related dental diseases (1a, 1b, 2c).
3. Develop and implement a patient education plan utilizing the concepts of communication and behavior modification by:
    a. identifying the steps in a behavior modification program (1a, 1b, 2c);
    b. developing intervention strategies for patient behavior modification (1a, 1b, 2c);
    c. initiating a behavior modification program for a patient (1a, 1b, 2b, 2c).

DHYG 1235 - Pharmacology for The Dental Hygienist

General

Course Key
8047

Course Rubric
DHYG

Course Number
1235

Course Title
Pharmacology for the Dental Hygienist

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-1) Classification of drugs and their uses, actions, interactions, side effects, contraindications, with emphasis on dental applications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Differentiate the classification of drugs; identify the uses, actions, and contraindications of drugs; and recognize systemic and oral manifestations associated with their use.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the uses, actions, and contraindications of drugs by:
    a. identifying the use, actions, and contraindications of drugs given a patient medical history (1a, 1b, 2b, 2c, 2e);
    b. identifying possible drug interactions and possible implications given a patient medical history (1a, 1b, 2b, 2c, 2e).
2. Demonstrate understanding of the differences in the classification of drugs by:
    a. identifying drug names and their classifications for use (1a, 1b, 2b);
    b. stating the use(s) of various classifications for pharmacological use (1a, 1b, 2b).
3. Demonstrate understanding of the systemic and oral manifestations associated with drug use by:
    a. identifying possible systemic effects of various pharmacological agents (1a, 1b, 2b, 2c, 2e);
    b. identifying possible oral effects of various pharmacological agents (1a, 1b, 2c, 2e).

DHYG 1239 - General and Oral Pathology

General

Course Key
245

Course Rubric
DHYG

Course Number
1239

Course Title
General and Oral Pathology

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Differentiate between normal and abnormal conditions of the human body with emphasis on the oral cavity; and identify the major principles for disease prevention.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the differences between normal and abnormal conditions of the human body with emphasis on the oral cavity by:
    a. defining assigned terminology (1a, 1b);
    b. comprehending signs and symptoms of benign oral disease (1a, 1b, 1c, 2b, 2e);
    c. identifying diagnosis and treatment of common vesicular and ulcerative oral lesions (1a, 1b, 2b, 2c, 2e).
2. Demonstrate an understanding and the ability to identify the major principles for disease prevention by:
    a. synthesizing a differential diagnosis (1a, 1b, 2b, 2c, 2e);
    b. constructing a treatment plan (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. organizing a treatment plan for a patient with oral cancer (1a, 1b, 1c, 2a, 2b, 2c, 2e).

DHYG 1260 - Clinical-Dental Hygiene/Hygienist

General

Course Key
249

Course Rubric
DHYG

Course Number
1260

Course Title
Clinical-Dental Hygiene/Hygienist

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
8

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-8) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the dental hygiene knowledge applicable to the theory, concepts, and skills involving specialized dental hygiene instrumentation and procedures - beginner level by:
    a. designing preventive counseling sessions and a report (1a, 1b, 1c, 2b, 2c, 2e);
    b. explaining patient assessment, diagnosis, planning, implementation, and evaluation (1a, 1b, 1c, 2b, 2c, 2e);
    c. demonstrating an understanding of the policies and procedures in the TCC clinic manual (1a, 1b, 1c, 2b, 2c, 2e).
2. Demonstrate an understanding of the legal and ethical behavior expected during dental hygiene patient care by:
    a. receiving acceptable ratings on professionalism evaluations (1a, 1b, 1c, 2b, 2c);
    b. adhering to ethical principles (1a, 1b, 1c).
3. Participate in clinical experiences applicable to dental hygiene patient care - beginner level by:
    a. performing acceptable clinical skills demonstrations (1a, 1b, 1c, 2b, 2c, 2e).

DHYG 1301 - Orofacial Anatomy, Histology, Embryology

General

Course Key
255

Course Rubric	Course Number	Course Title
DHYG	1301	Orofacial Anatomy, Histology, Embryology

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the dental hygiene knowledge applicable to the theory, concepts, and skills involving specialized dental hygiene instrumentation and procedures - beginner level by:
    a. designing preventive counseling sessions and a report (1a, 1b, 1c, 2b, 2c, 2e);
    b. explaining patient assessment, diagnosis, planning, implementation, and evaluation (1a, 1b, 1c, 2b, 2c, 2e);
    c. demonstrating an understanding of the policies and procedures in the TCC clinic manual (1a, 1b, 1c, 2b, 2c, 2e).
2. Demonstrate an understanding of the legal and ethical behavior expected during dental hygiene patient care by:
    a. receiving acceptable ratings on professionalism evaluations (1a, 1b, 1c, 2b, 2c);
    b. adhering to ethical principles (1a, 1b, 1c).
3. Participate in clinical experiences applicable to dental hygiene patient care - beginner level by:
    a. performing acceptable clinical skills demonstrations (1a, 1b, 1c, 2b, 2c, 2e).

DHYG 1304 - Dental Radiology

General

Course Key
263

Course Rubric	Course Number	Course Title
DHYG	1304	Dental Radiology

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics. Topics include radiation physics, biology, hygiene, and safety theories with an emphasis on the fundamentals of oral radiographic techniques and interpretation of radiographs. Includes exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Explain the principles of radiation as it relates to physics, biology, hygiene, and safety; produce and interpret diagnostically acceptable radiographs utilizing various radiographic techniques; apply the principles of quality assurance and ethics in dental radiography; and describe the fundamentals of oral radiographic techniques and interpretation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the principles of radiation physics, biology, hygiene, and safety by:
    a. stating the various principles regarding radiation physics (1a, 1b, 2c);
    b. stating biological, hygiene, and safety concerns regarding dental radiology (1a, 1b, 2b, 2c, 2d, 2e).
2. Demonstrate an understanding of the principles of quality assurance and ethics in dental radiography by:
    a. describing the concepts involved in maintaining quality assurance and ethics (1a, 1b, 1c, 2b);
    b. creating a quality assurance program for the dental office (1a, 1b, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate an understanding of the fundamentals of oral radiographic techniques and interpretation basic level by:
    a. applying radiographic techniques by exposing, processing, and mounting various types of radiographs (1a, 1b, 2a, 2b, 2e);
    b. offering interpretation of normal and abnormal findings on various radiographs (1a, 1b, 2a, 2b, 2c, 2e).

DHYG 1311 - Periodontology

General

Course Key
269

Course Rubric
DHYG

Course Number
1311

Course Title
Periodontology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Contrast normal and abnormal periodontium; analyze the etiology and pathology of periodontal diseases; differentiate treatment modalities used for therapy and prevention; and interpret periodontal assessment data to develop a dental hygiene care plan.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of normal and abnormal periodontium by:
    a. identifying periodontal structures (1a, 1b, 2c);
    b. differentiating between healthy and diseased periodontium (1a, 1b, 2c).
2. Demonstrate an understanding of the etiology and pathology of periodontal diseases by:
    a. describing periodontal disease processes (1a, 1b, 2c);
    b. explaining etiology of periodontal diseases (1a, 1b, 2c);
    c. interpreting signs and symptoms of the various periodontal diseases (1a, 1b, 2c).
3. Demonstrate an understanding of the differences in treatment modalities used for therapy and prevention by:
    a. distinguishing between prevention and therapy (1a, 1b, 2c);
    b. identifying methods of prevention for periodontal diseases (1a, 1b, 2c);
    c. identifying treatment modalities for periodontal diseases (1a, 1b, 2c).
4. Demonstrate an understanding of periodontal assessment data to develop a dental hygiene treatment plan by:
    a. identifying components of the periodontal assessment process (1a, 1b, 2c);
    b. performing analysis of patient assessment data (1a, 1b, 2c);
    c. formulating a dental hygiene treatment plan based on a patient's periodontal assessment data (1a, 1b, 2c).

DHYG 1431 - Preclinical Dental Hygiene

General

Course Key
288

Course Rubric
DHYG

Course Number
1431

Course Title
Preclinical Dental Hygiene

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-6) Foundational knowledge for performing clinical skills and management of medical emergencies for patients with emphasis on procedures and rationale for performing dental hygiene care. Introduction to ethical principles as they apply to dental hygiene care.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Explain the procedures and rationale for dental hygiene care; demonstrate basic dental hygiene instrumentation skills; and define ethical principles related to dental hygiene care.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of various patient needs by:
    a. defining special needs patient (1a, 1b, 2c);
    b. identifying systemic conditions that warrant special considerations for a patient (1a, 1b, 2c).
2. Demonstrate an understanding of and the ability to formulate a treatment plan for the medically and dentally compromised patient by:
    a. defining the components for treatment planning (1a, 1b, 2c);
    b. developing treatment plans for medically compromised patients (1a, 1b, 2a, 2c, 2e).
3. Describe supplemental instrumentation techniques by:
    a. performing modified fulcrum techniques (1a, 1b, 2c);
    b. performing instrument sharpening (1a, 1b, 2c).
4. Demonstrate an understanding of ethical principles as they relate to dental hygiene care by:
    a. defining ethical terminology (1a, 1b, 2c);
    b. formulating a personal philosophy by writing a moral compass paper (1a, 1b, 2a, 2c, 2e).

DHYG 2201 - Dental Hygiene Care I

General

Course Key
15254

Course Rubric	Course Number	Course Title
DHYG	2201	Dental Hygiene Care I

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-1) Dental hygiene care for the medically or dentally compromised patient including supportive treatment options.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Assess various patient needs; formulate a dental hygiene care plan for the medically and/or dentally compromised patient; and describe supplemental instrumentation techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of various patient needs by:
    a. defining special need patient (1a, 1b, 2c);
    b. identifying systemic conditions that warrant special considerations for patient (1a, 1b, 2c).
2. Demonstrate understanding and the ability to formulate a treatment plan for the medically and dentally compromised patient by:
    a. defining the components for treatment planning (1a, 1b, 2c);
    b. developing treatment plans for medically compromised patient (1a, 1b, 2a, 2c, 2e).
3. Describe supplemental instrumentation techniques by:
    a. performing modified fulcrum techniques (1a, 1b, 2c);
    b. performing instrument sharpening (1a, 1b, 2c).

DHYG 2253 - Dental Hygiene Practice

General

Course Key
14901

Course Rubric	Course Number	Course Title
DHYG	2253	Dental Hygiene Practice

Semester Credit Hours	Lecture Hours	Lab Hours
2	1	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Practice settings for the dental hygienist, office operations, preparation for employment, and introduction to the dental team.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Explain the Dental Practice Act governing the dental and dental hygiene profession; evaluate ethical and moral issues affecting dental hygiene practice; describe traditional and non-traditional dental hygiene practice settings; and prepare for employment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the rules governing the dental and dental hygiene profession by:
    a. demonstrating acceptable ratings on written exams (1a, 1b, 1c, 2b, 2c, 2e);
    b. contributing actively in class discussions (1a, 1b, 1c, 2b, 2c).
2. Demonstrate understanding of the ethical and moral issues affecting dental hygiene practice by:
    a. demonstrating acceptable ratings on written exams (1a, 1b, 1c, 2b, 2c, 2e);
    b. contributing actively in class discussions (1a, 1b, 1c, 2b, 2c).
3. Demonstrate understanding of the current technologies in dental hygiene practice settings by:
    a. demonstrating acceptable ratings on written exams (1a, 1b, 1c, 2b, 2c, 2e);
    b. contributing actively in utilizing the various technologies (1a, 1b, 1c, 2b, 2c, 2d, 2e).
4. Demonstrate understanding of the process to prepare for employment by:
    a. demonstrating acceptable ratings on written exams and resume writing (1a, 1b, 1c, 2b, 2c, 2e);
    b. contributing actively in activities designed to prepare them for seeking employment (1a, 1b, 1c, 2b, 2c, 2e).

DHYG 2331 - Dental Hygiene Care II

General

Course Key
15255

Course Rubric	Course Number	Course Title
DHYG	2331	Dental Hygiene Care II

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) A continuation of Dental Hygiene Care I. Dental hygiene care for the medically or dentally compromised patient including supportive treatment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: Formulate a dental hygiene care plan for the medically and/or dentally compromised patient; and describe advanced instrumentation techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of various patient needs by:
    a. defining special need patient (1a, 1b, 2c);
    b. identifying systemic conditions that warrant special considerations for a patient (1a, 1b, 2c).
2. Demonstrate understanding of the treatment planning process for the medically and dentally compromised patient by:
    a. defining the components for treatment planning (1a, 1b, 2c);
    b. preparing treatment plan for medically compromised patient (1a, 1b, 2a, 2c).
3. Demonstrate understanding of advanced instrumentation techniques by:
    a. identifying advanced dental hygiene instruments (1a, 1b, 2c);
    b. performing advanced dental hygiene instrumentation (1a, 1b, 2c, 2e).

DHYG 2360 - Clinical-Dental Hygienist

General

Course Key
302

Course Rubric	Course Number	Course Title
DHYG	2360	Clinical-Dental Hygiene/Hygienist

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	16

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-16) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the dental hygiene knowledge applicable to the theory, concepts, and skills involving specialized dental hygiene instrumentation and procedures - intermediate level by:
    a. performing acceptable clinical skills demonstrations (1a, 1b, 1c, 2b, 2c, 2e);
    b. demonstrating knowledge as given on computer exams and written projects (1a, 1b, 1c, 2b, 2c, 2e).
2. Demonstrate understanding of the legal and ethical behavior expected during dental hygiene patient care by:
    a. demonstrating acceptable ratings on Professionalism Evaluations (1a, 1b, 1c, 2b, 2c, 2e).
3. Participate in clinical experiences applicable to dental hygiene patient care - intermediate level by:
    a. demonstrating acceptable clinical skills at extramural rotations (1a, 1b, 1c, 2b, 2b, 2c, 2e).

DHYG 2361 - Clinical-Dental Hygienist

General

Course Key
308

Course Rubric
DHYG

Course Number
2361

Course Title
Clinical-Dental Hygiene/Hygienist

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
16

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-16) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the dental hygiene knowledge applicable to the theory, concepts, and skills involving specialized dental hygiene instrumentation and procedures - intermediate level by:
    a. demonstrating acceptable clinical skills demonstrations (1a, 1b, 1c, 2b, 2c, 2e);
    b. demonstrating knowledge as given on computer exams and written and oral projects (1a, 1b, 1c, 2b, 2c, 2e).
2. Demonstrate understanding of the legal and ethical behavior expected during dental hygiene patient care by:
    a. demonstrating acceptable ratings on Professionalism Evaluations (1a, 1b, 1c, 2b, 2c, 2e).
3. Participate in clinical experiences applicable to dental hygiene patient care - intermediate level by:
    a. demonstrating acceptable clinical skills at extramural rotations (1a, 1b, 1c, 2b, 2c, 2e);
    b. demonstrating effective communication skills in both written and oral forms (1a, 1b, 1c, 2b, 2c, 2e).

DITA 1300 - Dietary Manager I

General

Course Key
16519

Course Rubric
DITA

Course Number
1300

Course Title
Dietary Manager I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Preparation for supervisory roles in food service departments. Emphasis on normal and therapeutic nutrition and food service systems management. Major topics include dietary and meal planning guidelines, sources and functions of nutrients, diet therapy, nutritional assessment and care, food production management and purchasing, and regulatory agencies. Also included is nutrition documentation. Recommended Corequisite(s): HECO-1322 and DITA-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Corequisite(s): HECO-1322 and DITA-1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply diet and nutrition principles to menu selection and food preparation for maximal health benefit and enjoyment of persons on regular or altered diets; discuss nutrition assessment and care planning process and participate in the processes as required; and organize the procurement and preparation of foods and meals to meet the dietary needs of clientele within resources available.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the relationship between food and culture by:
    a. demonstrating an understanding of cultural competence/sensitivity (KNDT 2.5) (1a, 1b, 2c);
    b. demonstrating effective interviewing and education methods for diverse individuals and groups (KNDT 2.2) (1a, 1b, 2c);
    c. obtaining food preferences from individuals (1a, 1b, 1c, 2a, 2b);
    d. comparing food customs and nutritional intake of various racial, cultural, and religious groups (1a, 1b, 2c);
    e. discussing factors that affect food choices (1a, 1b);
    f. performing self-assessment that includes self-awareness in terms of learning and leadership styles and cultural orientation and develop goals for self-improvement (KNDT 5.1) (CNDT 5.1) (1a, 1b, 1c);
2. Demonstrate understanding of normal nutrition and basic nutritional needs of healthy individuals by:
    a. identifying food sources of macro and micro nutrients (1a, 2a);
    b. describing primary functions of macro and micro nutrients (1a, 2b);
    c. discussing factors leading to excess dietary intake (1a, 1b, 2b, 2c);
    d. identifying foods high in saturated fat, sodium, carbohydrates, and calories (1a, 1b, 2a);
    e. identifying characteristics of a healthy meal (1a, 1b, 2b, 2c);
    f. developing a healthy and calorie controlled meal plan using current food guidance system (1a, 1b, 2c);
    g. providing nutrition and lifestyle education to well populations (CNDT 3.3) (1a, 1b, 2c);
    h. promoting health improvement, food safety, wellness, and disease prevention for the general population (CNDT 3.4) (1a, 1b, 2c);
3. Demonstrate general understanding of the use of complementary and alternative therapies by:
    a. recalling common complementary and alternative therapies (CAM) (1a, 1b, 2c);
    b. discussing principles and approaches of various CAM therapies (1a, 1b, 2c);
    c. identifying risks and benefits associated with the use of alternative therapies (1a, 1b, 2c);
4. Demonstrate understanding of basic concepts of Medical Nutrition Therapy (MNT) by:
    a. defining basic concepts of MNT (1a, 1b, 2c);
    b. explaining use of MNT in clinical settings (1a, 1b, 2c);
    c. reviewing symptoms of nutrient deficiency and excess as related to nutrient intake (1a, 1b, 2c);
    d. relating basic concepts of MNT to diseases involving different organ systems (1a, 1b, 2c);
    e. completing a case study research on a low risk patient (1a, 1b, 2c);
    f. referencing diet manuals or other nutrition resources (1a, 1b, 2c, 2e);
    g. demonstrating an understanding of the Nutrition Care Process and clinical workflow elements for nutrition screening for the referral to the registered dietitian nutritionist, collection of assessment data, nutrition interventions and monitoring strategies appropriate to technician level of practice (KNDT 3.1) (1a, 1b, 2b, 2d, 2e);
5. Perform nutrition interview to collect diet history by:
    a. identifying and describing the work of inter-professional teams and the roles of others with whom the nutrition and dietetics technician, registered collaborates in the delivery of food and nutrition services (KNDT 2.4) (1b, 1c);
    b. showing cultural humility in interactions colleagues, staff, clients, patients, and the public (CNDT 2.9) (1a, 1b, 1c, 2b, 2c);
    c. asking appropriate questions considering culture and needs of patients (1a, 1c, 2a, 2b, 2c);
    d. recognizing non-verbal responses and communication cues (1a, 1b);
    e. gathering information from patients, family members, and other multidisciplinary team members (1a, 1b, 2b, 2c);
    f. applying ethical and confidentiality principles (1b, 1c, 2a, 2d);
    g. addressing food customs and nutritional needs of patients (1a, 1b, 2c, 2d);
6. Perform nutrition screening and identify clients or patients to be referred to a registered dietitian nutritionist (CNDT 3.1) by:
    a. performing specific activities of the Nutrition Care Process as assigned by registered dietitian nutritionists in accordance with the Scope of Nutrition and dietetics practice for individuals, groups, and populations in a variety of settings (CNDT 3.2) (1a, 1b, 1c);
    b. outlining nutrition screening process (1a, 1b, 2c);
    c. gathering appropriate data specific to client types (1a, 1b, 1c, 2a, 2c);
    d. recognizing signs and symptoms of malnutrition and excess intake (1a, 1b, 2c);
    e. recognizing signs and symptoms of dysphagia (1a, 1b, 2c);
    f. referring situations outside the nutrition and dietetics technician scope of practice or area of competence to a registered dietitian nutritionist or professional (CNDT 2.6) (1a, 1b, 2c);
    g. differentiating between nutrition screening and assessment (1a, 1b, 2c);
7. Demonstrate competency in conducting nutrition assessments by:
    a. applying critical thinking skills (KNDT 1.3) (1b);

b. gathering patient's history, dietary intake, anthropometric measurements, laboratory data, and clinical/physical assessment data (1a, 1b, 2a, 2c);

c. functioning as a member of inter-professional teams (CNDT 2.5) (1a, 1c, 2b);

d. computing nutrient intake (1a, 1b, 2a, 2c, 2e);

e. evaluating anthropometric measurements and growth (1a, 1b, 2c);

f. distinguishing nutrition-relevant laboratory values for nutritional assessment (1a, 1b, 2c, 2d);

g. estimating requirements for energy, protein, and fluid (1a, 1b, 2c);

h. identifying common food/drug interactions (1a, 1b, 2c);

i. evaluating patient's nutrition status (1a, 1b, 2c);

8. Plan nutritionally sound meals, menus and meal plans that promote health and disease management and meet client's/patient's needs (KNDT 3.4) by:

a. accessing data, references, patient education materials, consumer, and other information from credible sources (CNDT 1.1) (1a, 2c, 2e);

b. evaluating information to determine if it is consistent with accepted scientific evidence (CNDT 1.2) (1a, 2c);

c. developing interventions to effect change and enhance wellness in diverse individuals and groups (KNDT 3.2) (1a 1b);

d. identifying menu planning needs of infants, children, and older adults (1a, 1b, 2c, 2d);

e. assisting patients with selection of meals that meet dietary restrictions (1a, 1b, 2b);

f. selecting appropriate foods for modified consistency and transitional diets (1a, 1b, 2c);

g. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various population, groups and individuals (CNDT 3.8) (1a, 1b, 2b, 2c);

h. honoring patient rights and input while providing nutrition care (1a, 1b, 2a, 2b, 2c, 2d);

i. monitoring signs and symptoms related to nutrition diagnosis and effectiveness of nutrition care plan (1a, 1b, 2a, 2c);

j. recognizing appropriateness of diet order for diagnosis (1a, 1b, 2c, 2d);

k. demonstrating active participation, teamwork, and contributions in group settings (CNDT 2.4) (1c, 2b);

9. Provide appropriate nutrition education by:

a. demonstrating effective and professional oral and written communication skills sufficient for entry into technical practice (KNDT 2.1) (1a);

b. using clear and effective oral and written communication (CNDT 2.2) (1a);

c. preparing and delivering sound food and nutrition presentations to a target audience (CNDT 2.3) (1a, 1b, 2c);

d. implementing interventions to effect change and enhance wellness in diverse individuals and groups (KNDT 3.2) (1a, 1b, 2d);

e. presenting an educational session to a target population (KNDT 3.3) (1a, 1b, 2c);

f. evaluating client readiness, ability to learn, and social resources (1a, 1b, 2b, 2c, 2d);

g. assessing client's knowledge and needs (1a, 1b, 2b, 2c, 2d);

h. selecting appropriate nutrition education materials and resources (1a, 1b, 2c);

i. suggesting acceptable food substitutes according to patient preferences (1a, 1b, 2c, 2d);

10. Utilize standardized language and nutrition terminology in documenting nutrition data by:

a. demonstrating how to locate, interpret, evaluate, and use professional literature to make ethical, evidenced-based practice decisions related to dietetics technician level of practice (KNDT 1.1) (1a, 1b, 2c);

b. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols (KNDT 1.2) (1b, 2c, 2e);

c. explaining uses of common documents, including diet manual, medical record, MDS form, and Resident Assessment Instrument (RAI) (1a, 1b, 2c);

d. decoding common medical abbreviations and medical nutrition terminology (1a, 2c);

e. charting in medical records using appropriate format (e.g. ADIME) and forms (1a, 1b, 2c);

f. using current nutrition informatics technology to develop, manage, and disseminate information and data (CNDT 4.3) (2c, 2e);

11. Understand the relationship between the quality of care and the regulatory agencies by:

a. identifying health care delivery systems and policies that impact nutrition and dietetics technician practice (KNDT 4.4) (1a, 1b);

b. stating the name of the regulatory agency for long term care facilities (1a, 1b, 2c);

c. explaining legislative and regulatory policies related to nutrition and dietetics technician level of practice (KNDT 2.6) (1a, 1b);

d. advocating for local, state, or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession (CNDT 2.10) (1a, 1b,1c, 2b, 2d, 2e);

e. explaining the importance of regulation on the quality management process (1a, 1b, 2c, 2d);

f. identifying regulatory areas specific to dietary/nutrition evaluation and intervention (1a, 1b, 2c, 2d);

g. describing the governance of nutrition and dietetics practice, such as the Scope for the Nutrition and Dietetics Technician, Registered and the Code of Ethics for the Profession of Nutrition and Dietetics (KNDT 2.3) (1a, 1b, 1c);

DITA 1301 - Dietary Manager II

General

Course Key
16520

Course Rubric	Course Number	Course Title
DITA	1301	Dietary Manager II

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Emphasis on food service sanitation and safety, administrative and personnel management. Major topics include regulatory agencies, computer applications, production management, budgeting and cost control, personnel management, quality assurance, leadership skills, human relations, and communications. Students may take this course prior to DITA-1300. A minimum grade of "B" is required in this course to petition for FDNS 1168. This course will offer the ServSafe exam required for IFWA 2446. Required Prerequisite(s): TSI Met in Math Recommended Corequisite(s): DITA-1300

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): TSI Met in Math

Recommended Corequisite(s): DITA-1300

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Name and use the latest safe food handling techniques to meet state and federal guidelines; and demonstrate leadership through recruitment, orientation, staff development, and evaluation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the processes involved in delivering quality food and nutrition services (KNDT 4.5) by:

a. comparing various meal service options (1a, 2a);

b. discussing quality control standards for meals, including appearance, portion size, temperature, diet accuracy, and acceptance (1a, 1b, 2a, 2c);

c. demonstrating use of standard food weights, measures, and recipes correctly (1a, 1b, 2a, 2c);

d. calculating food cost and meals per labor hours for foodservice operation (1a, 1b, 2a, 2c);

e. identifying and providing appropriate nutrition information based on patient needs (1a, 1b, 2d);

f. recommending procedures to monitor cost and passing of meals and nourishments (1a, 1b, 2a, 2c, 2d);

2. Supervise the purchasing, production, and service of food that meets nutrition guidelines, cost parameters, and health needs (CNDT 3.7) by:

a. identifying elements of standardizing recipes (1a, 1b);

b. using diet census and tally sheets to estimate amount to produce (1a, 1b);

c. using current nutrition informatics technology to develop, manage, and disseminate nutrition information, data, and to analyze nutrient contents of recipes (CNDT 4.3) (1a, 1b, 2a, 2c, 2e);

d. discussing procedures to monitor food production and food waste (1a, 1b);

e. proposing procedures and using procedures as appropriate to the practice setting to promote sustainability, reduce waste and protect the environment (CNDT 4.7) (1a, 1b, 2d);

3. Participate in menu planning for food service organizations by:

a. describing characteristics of different types of menus (1a, 1b);

b. utilizing nutrition guides and other appropriate resources to develop or modify menus (1a, 2a, 2c, 2e);

c. computing cost of menus, catered meals, and daily cost per patient (1a, 1b);

d. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups, and individuals (CDNT 3.8) (1a, 1b, 2a, 2c, 2d);

4. Manage food supplies and equipment use as related to purchasing, receiving, storage, and distribution by:

a. conducting inventory and maintaining inventory records (1a, 1b);

b. describing the process of receiving food deliveries (1a, 1b, 2a);

c. recognizing signs of contamination upon receipt and in storage (1a, 1b, 2a, 2c, 2d);

d. explaining food and inventory management practices, such as FIFO, par stock, physical, and perpetual (1a, 1b, 2a);

e. describing specifications for products for purchasing (1a, 1b);

f. completing purchase order and requisition forms (1a, 1b);

g. selecting appropriate equipment considering needs, space, and budget (1a, 1b, 2a);

h. discussing process for vendor bidding and selection (1a, 1b);

i. establishing equipment cleaning and maintenance procedures (1a, 1b, 2a, 2d, 2e);

5. Evaluate departmental design and facility layout by:

a. reviewing kitchen design and facility layout of different types of food service facilities (1a, 1b, 2a, 2c, 2d);

b. identifying workflow and essential equipment (1b, 2a, 2c, 2d);

c. developing equipment specifications for new equipment requests (1a, 1b, 2a, 2d, 2e);

d. considering concepts of sustainability and environment in facility design (1a, 1b, 2a);

6. Apply safety and sanitation principles related to food, personnel, and consumers (KNDT 4.3) by:

a. explaining legislative and regulatory policies related to federal safety laws and regulations for food service facilities (KNDT 2.6) (1a, 1b, 2a);

b. identifying potentially hazardous foods and foodborne pathogens (1b, 2a, 2c);

c. explaining the HACCP principles (1a, 1b);

d. developing procedures to prevent cross contamination (1a, 1b, 2c, 2d);

e. recalling temperature and time during cooling and holding (1a, 1b);

f. developing a HACCP plan for a recipe (1a, 1b, 2c, 2d, 2e);

g. demonstrating proper hand washing procedure and safe food practices (1a, 1b);

h. interpreting and using SDS (1a, 1b);

i. writing cleaning procedures for utensils, equipment, and work areas (1a, 1b);

j. preparing a safety inspection check list (1a, 1b, 2c, 2d);

k. conducting a mock sanitation and safety inspection (1a, 1b, 2c, 2d);

7. Deliver nutrition services through quality improvement and customer satisfaction activities to improve delivery of nutrition services (CNDT 4.1) by:
    a. defining departmental goals and objectives (1a, 2a);
    b. identifying quality indicators in healthcare food service (1a, 1b, 2c);
    c. developing auditing tool to determine the effectiveness of quality indicators (1a, 1b, 2a, 2c, 2d, 2e);
    d. using technology to develop food acceptance survey to identify food preferences and problem areas (1a, 2a, 2c, 2d, 2e);
    e. providing recommendations to improve meal services (1a, 2a, 2c, 2d);
8. Participate in the human resource management process by:
    a. defining management functions of human resources (KNDT 4.1) (1a, 1b);
    b. calculating labor hours, FTEs and personnel cost for a foodservice department (1a, 2a, 2c);
    c. writing detailed job descriptions (1a, 1b);
    d. preparing departmental organizational chart (1a, 1b, 2a, 2c);
    e. participating in recruiting, interviewing, hiring, and termination processes (1a, 1b, 1c, 2a, 2b, 2c);
    f. identifying fair employment laws and practices (1a, 1b, 2a, 2c, 2d);
    g. preparing employee work schedules based on estimated needs and trends (1a, 1b, 2a, 2b, 2c);
    h. identifying personnel management laws and practices (1a, 1b, 2a);
    i. providing strategies to retain employees and decrease turnovers (1a, 1b, 2a, 2b, 2c, 2d);
    j. identifying criteria for promotion and termination (1a, 1b, 2c, 2d);
    k. preparing a performance evaluation (1a, 1b, 2c, 2d);
    l. practicing and/or role playing mentoring of employees (CNDT 2.13) (1c, 2b);
    m. demonstrating an understanding of the importance and expectations of a professional in mentoring and precepting others (KNDT 5.6) (1c, 2a, 2b);
9. Demonstrate understanding of business operations by
    a. defining financial terminology (1a, 1b);
    b. explaining budgeting principles and techniques (KNDT 4.2) (1a, 1b);
    c. identifying revenue-generating opportunity (1a, 2a);
    d. calculating employee productivity (1a, 2a);
    e. calculating food cost and profitability (1a, 2a);
    f. identifying cost-control strategies to balance budget (1b, 2a, 2c, 2d);
    g. assisting with marketing clinical and customer services (CNDT 4.6) (1a, 1b, 2d);
    h. differentiating between operating and capital budgets (1b, 2a, 2c, 2d);
    i. applying critical thinking skills (KNDT 1.3) (1b);
    j. assisting in developing a plan for a new foodservice operation, including budget (CNDT 4.4) (1b, 2a, 2c, 2d);
    k. making ethical decisions in business operations (1b, 1c, 2a).
10. Communicate effectively with staff by
    a. demonstrating effective and professional oral and written communication skills sufficient for entry into technical practice (KNDT 2.1) (1a, 2b);
    b. using clear and effective oral and written communication (CNDT 2.2) (1a, 2b);
    c. writing an internal memo on changes and justification for changes (1a, 1b, 2b, 2e);
    d. developing an agenda for conducting a departmental meeting (1b, 2a, 2b, 2c);
    e. presenting education and training sessions to employees on the following topics: facility procedures, HIPAA guidelines, food safety guidelines, infection control, and use/maintenance of equipment (CNDT 4.2) (1a, 2c, 2d).
11. Demonstrate professional attributes in all areas of practice (CNDT 2.8) by
    a. identifying and describing the work of inter-professional teams and the roles of others with whom the nutrition and dietetics technician, registered collaborates in the delivery of food and nutrition services (KNDT 2.4) (1a, 1c, 2b);
    b. functioning as a member of inter-professional teams (CNDT 2.5) (1a, 1c, 2b);
    c. demonstrating active participation, teamwork, and contributions in group settings (CNDT 2.4) (1a, 1c, 2b);
    d. adhering to current federal regulations and state statutes and rules by honoring patients' rights and responsibilities (CNDT 2.1) (1a, 1c, 2b);
    e. showing professionalism in interactions with colleagues, staff, clients, patients, and the public (CNDT 2.9) (1a, 1b, 1c, 2b, 2c);
    f. identifying and articulating the value of precepting (CNDT 5.7) (1a, 1b, 2a);
    g. advocating for local, state, or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession (CNDT 2.10) (1a, 1b,1c, 2b, 2d, 2e);
    h. defending a position on issues impacting nutrition and dietetics profession (KNDT 2.9) (1a, 1b, 2c, 2d).
12. Demonstrate skills, strengths, knowledge, and experience relevant to leadership potential and professional growth for the nutrition and dietetics practitioner by
    a. performing self-assessment that includes self-awareness in terms of learning and leadership styles and develop goals for self-improvement (KNDT 5.1) (CDNT 5.1) (1a, 1b, 1c);
    b. identifying and articulating one's skills, strengths, knowledge, and experiences relevant to the position desired and career goals (KNDT 5.2) (1a, 1b, 1c, 2a, 2b, 2d);
    c. practicing resolving differences or dealing with conflict, as appropriate (KNDT 5.4) (1a, 1b, 2a, 2b, 2c, 2d);
    d. advocating for opportunities in the professional settings (such as asking for additional responsibility, practicing negotiating a salary or wage or asking for a promotion) (CNDT 5.4) (1a, 1b, 1c, 2b, 2d);
    e. creating a resume and setting up an employment portfolio for documents collection (1a, 1b, 1c).

DMSO 1110 - Introduction to Sonography

General

Course Key
15166

Course Rubric
DMSO

Course Number
1110

Course Title
Introduction to Sonography

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-1) An introduction to the profession of sonography, the education and role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-1302, DMSO-1441, and DMSO-1266

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-1302 DMSO-1441 DMSO-1266;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 1302, DMSO 1441, and DMSO 1266

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Describe the historical development of ultrasound and related professional organizations; identify registry and lab accreditation requirements and process; discuss clinical practice guidelines for sonographers; define medical terms; and explain medical, legal, and ethical aspects of the profession.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Define sonographic terms and medical terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Describe the communication and critical thinking skills for the sonographer (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Describe sonographer safety issues (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Describe patient-sonographer interaction, including medical techniques, and patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Identify clinical assessments and sonographic procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Understand the fundamental elements for implementing a quality assurance and improvement program, and policies, protocols, and procedures for the general function of the ultrasound laboratory (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 1266 - Pract-Diag Med Snog/Snog Ultrasnd Tech

General

Course Key
12707

Course Rubric
DMSO

Course Number
1266

Course Title
Practicum (or Field Experience) Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisite: Admission into the Diagnostic Medical Sonography Program Required Corequisites: DMSO-1110, DMSO-1302, and DMSO-1441

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-1110 DMSO-1302 DMSO-1441;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into the Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 1110, DMSO 1302, and DMSO 1441

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of acoustic physics, Doppler ultrasound principles, and ultrasound instrumentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate basic medical techniques and patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate knowledge and understanding of human gross anatomy and sectional anatomy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate the scanning planes and methods used in sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Describe the operations of the assigned clinical facility service area (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate the professional qualities pertinent to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Recognize the importance of, and practice ergonomically correct scanning techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Prepare patient for the sonographic examination and observe the clinical instructor during the sonographic evaluation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Integrate sonographic findings with clinical history, patient history, prior imaging studies, and lab results, and formulate the sonographic impression (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Present the case to the radiologist and articulate a differential diagnosis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Demonstrate professional judgement and discretion in relation to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 1267 - Pract-Diag Med Snog/Snog Ultrasnd Tech

General

Course Key
15193

Course Rubric
DMSO

Course Number
1267

Course Title
Practicum (or Field Experience) Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
18

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-18) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisite: Admission into the Diagnostic Medical Sonography Program Required Corequisites: DMSO-2242 & DMSO-2253

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # TAKE DMSO-2242 DMSO-2253;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into the Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 2242 & DMSO 2253

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcome: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of acoustic physics, Doppler ultrasound principles, and ultrasound instrumentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate basic medical techniques and patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate knowledge and understanding of human gross anatomy and sectional anatomy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate the scanning planes, methods, and protocols used in sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Describe the operations of the assigned clinical facility service area (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate the professional qualities pertinent to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Recognize the importance of, and practice ergonomically correct scanning techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Review sonographic order, review prior studies, review lab results, review the clinical history, obtain the patient history, and prepare patient for the sonography examination by explaining the procedure, how the patient will receive results, and placing the patient in the appropriate patient position to begin the scan (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Demonstrate the ability to perform sonographic examination of the abdomen-limited exam according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology in the abdomen-limited exam (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Demonstrate the ability to perform sonographic examination of the abdomen-complete exam according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
13. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology in the abdomen-complete exam (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
14. Demonstrate the ability to perform sonographic examination of the biopsy, aspiration, or drainage procedure according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
15. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology in the biopsy, aspiration, or drainage procedure (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
16. Integrate sonographic findings with clinical history, patient history, prior imaging studies, and lab results, and formulate the sonographic impression (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
17. Present the case to the radiologist and articulate a differential diagnosis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
18. Demonstrate professional judgement and discretion in relation to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 1302 - Basic Ultrasound Physics

General

Course Key
15167

Course Rubric
DMSO

Course Number
1302

Course Title
Basic Ultrasound Physics

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Foundations of acoustical physics and acoustical waves in human tissue. Emphasis on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission, and resolution of sound beams. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-1110, DMSO-1441, and DMSO-1266

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-1110 DMSO-1441 DMSO-1266;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 1110, DMSO 1441, and DMSO 1266

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Describe the interaction of sound and soft tissues; explain sound production and propagation; and summarize the basic principles and techniques of ultrasound.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of acoustic physics, Doppler principles, and ultrasound instrumentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate knowledge and understanding of the interaction between ultrasound and tissue and the probability of biological effects of clinical ultrasound (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 1355 - Sonographic Pathophysiology

General

Course Key
15168

Course Rubric
DMSO

Course Number
1355

Course Title
Sonographic Pathophysiology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Pathology and pathophysiology of the organs and structures visualized with ultrasound. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-1367 and DSVT-1300

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-1367 DSVT-1300;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 1367 and DSVT 1300

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

Identify the sonographic appearances of normal abdominal and pelvic structures.

End-of-Course Outcomes: Identify abnormal sonographic patterns and pathological processes in organs and structures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Recognize abnormal sonographic patterns of the abdomen, reproductive, and urinary systems (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Recognize pathologic processes in identified organ structures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Explain physiology, pathology, and pathophysiology of abdominal and pelvic organs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Discuss the processes of pathology by
    a. listing and describing the basic mechanisms of disease and risk factors associated with disease (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. listing and describing the categories of pathogenic organisms and how they cause disease (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. distinguishing between the terms “benign” and “malignant” as they apply to tumors (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. outlining the events of inflammatory response and explaining its role in disease (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Describe the appropriate scanning techniques according to standard protocol guidelines (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, other modalities, normal, normal variants, and abnormal sonographic patterns of the abdominal vascular system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the liver (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the biliary system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the pancreas (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the gastrointestinal tract (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the urinary system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the spleen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
13. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the adrenal glands (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
14. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the retroperitoneum (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
15. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the peritoneal cavity and spaces (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
16. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the female pelvis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

17. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the male pelvis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
18. Describe how other modalities correlate to the organ and vascular systems evaluated with sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
19. Demonstrate how to interact with physicians with oral and written communication using sonographic terms regarding sonographic findings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 1366 - Pract-Diag Med Snog/Snog Ultrasnd Tech

General

Course Key
12411

Course Rubric
DMSO

Course Number
1366

Course Title
Practicum (or Field Experience) Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisite: Admission into the Diagnostic Medical Sonography Program Required Corequisites: DSVT-1103, DMSO-2305, and DMSO-2243

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DSVT-1103 DMSO-2305 DMSO-2243;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into the Diagnostic Medical Sonography Program
Required Corequisite(s): DSVT 1103, DMSO 2305, and DMSO 2243

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of acoustic physics, Doppler ultrasound principles, and ultrasound instrumentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate basic medical techniques and patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate knowledge and understanding of human gross anatomy and sectional anatomy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate the scanning planes, methods, and protocols used in sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Describe the operations of the assigned clinical facility service area (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate the professional qualities pertinent to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Recognize the importance of, and practice ergonomically correct scanning techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Review sonographic order, review prior studies, review lab results, review the clinical history, obtain the patient history, and prepare patient for the sonography examination by explaining the procedure, how the patient will receive results, and placing the patient in the appropriate patient position to begin the scan (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Demonstrate the ability to perform sonographic examination of the liver according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the liver (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Demonstrate the ability to perform sonographic examination of the gallbladder and biliary system according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
13. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the gallbladder and biliary system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
14. Demonstrate the ability to perform sonographic examination of the spleen according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
15. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the spleen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
16. Demonstrate the ability to perform sonographic examination of the pancreas according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
17. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the pancreas (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
18. Demonstrate the ability to perform sonographic examination of the urinary system according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
19. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the urinary system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
20. Demonstrate the ability to perform sonographic examination of the prevertebral vessels (aorta, IVC) according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

21. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the prevertebral vessels (aorta, IVC) (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
22. Demonstrate the ability to perform sonographic examination of the abdomen according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
23. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the abdomen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
24. Integrate sonographic findings with clinical history, patient history, prior imaging studies, and lab results, and formulate the sonographic impression (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
25. Present the case to the radiologist and articulate a differential diagnosis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
26. Demonstrate professional judgement and discretion in relation to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 1367 - Pract-Diag Med Snog/Snog Ultrasnd Tech

General

Course Key
12420

Course Rubric
DMSO

Course Number
1367

Course Title
Practicum (or Field Experience) Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisite: Admission into the Diagnostic Medical Sonography Program Required Corequisites: DMSO-1355 and DSVT-1300

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-1355 DSVT-1300;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into the Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 1355 and DSVT 1300

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcome: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of acoustic physics, Doppler ultrasound principles, and ultrasound instrumentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate basic medical techniques and patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate knowledge and understanding of human gross anatomy and sectional anatomy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate the scanning planes, methods, and protocols used in sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Describe the operations of the assigned clinical facility service area (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate the professional qualities pertinent to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Recognize the importance of, and practice ergonomically correct scanning techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Review sonographic order, review prior studies, review lab results, review the clinical history, obtain the patient history, and prepare patient for the sonography examination by explaining the procedure, how the patient will receive results, and placing the patient in the appropriate patient position to begin the scan (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Demonstrate the ability to perform sonographic examination of the abdomen with pathology according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the abdomen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Demonstrate the ability to perform sonographic examination of the thyroid according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
13. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the thyroid (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
14. Demonstrate the ability to perform sonographic examination of the scrotum according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
15. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the scrotum (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
16. Demonstrate the ability to perform sonographic examination of the transabdominal non-gravid gynecological region according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
17. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the transabdominal non-gravid gynecological region (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
18. Demonstrate the ability to perform sonographic examination of the endocavitary, non-gravid gynecological region according to protocol (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
19. Identify relational anatomy, normal anatomy, anatomic variants, pathology, and pathophysiology of the endocavitary, non-gravid gynecological region (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
20. Recognize, identify, and appropriately document the sonographic appearance of obstetric abnormalities, disease, pathology, and

pathophysiology in the first trimester exam (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

21. Recognize, identify, and appropriately document the sonographic appearance of obstetric abnormalities, disease, pathology, and pathophysiology in the obstetric-limited and follow-up of second and third trimester exams (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
22. Recognize, identify, and appropriately document the sonographic appearance of obstetric abnormalities, disease, pathology, and pathophysiology in the biophysical exam (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
23. Integrate sonographic findings with clinical history, patient history, prior imaging studies, and lab results, and formulate the sonographic impression (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
24. Present the case to the radiologist and articulate a differential diagnosis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
25. Demonstrate professional judgement and discretion in relation to patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 1441 - Abdominopelvic Sonography

General

Course Key
15169

Course Rubric	Course Number	Course Title
DMSO	1441	Abdominopelvic Sonography
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) Normal anatomy and physiology of the abdominal and pelvic cavities as related to laboratory data, scanning techniques, transducer selection, and scanning protocols. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-1110, DMSO-1302, and DMSO-1266

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-1110 DMSO-1302 DMSO-1266;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 1110, DMSO 1302, and DMSO 1266

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Identify the sonographic appearances of normal abdominal and pelvic structures; explain physiology of abdominal and pelvic organs; and describe ergonomic scanning techniques according to standard protocol guidelines.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Explain physiology, pathology, and pathophysiology of abdominal and pelvic organs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, other modalities, normal, normal variants, and abnormal sonographic patterns of the abdominal vascular system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the liver (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the biliary system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the pancreas (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the gastrointestinal tract (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the urinary system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the spleen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the adrenal glands (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the retroperitoneum (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the peritoneal cavity and spaces (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the female pelvis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
13. Demonstrate knowledge and understanding of the human gross anatomy, sectional anatomy, embryology, normal, normal variants, and abnormal sonographic patterns of the male pelvis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
14. Describe how other modalities correlate to the organ and vascular systems evaluated with sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
15. Demonstrate how to interact with physicians with oral and written communication using sonographic terms regarding sonographic findings, including formulating a differential diagnosis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 2130 - Advanced Ultrasound and Review

General

Course Key
15170

Course Rubric
DMSO

Course Number
2130

Course Title
Advanced Ultrasound and Review

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3) Preparation for medical sonography credentialing exams. Advanced medical sonography topics such as professional development and evolving sonographic applications and practices. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DSVT-2335 and DSVT-1364

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DSVT-2335 DSVT-1364;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DSVT 2335 and DSVT 1364

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Apply problem solving and critical thinking skills in the context of professional transition; and demonstrate registry preparedness.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate registry preparedness for abdominal, OB/GYN, and vascular registry examinations (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Develop a test-taking strategy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Describe patient care and technique for the sonographer (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 2242 - Advanced Obstetric Sonography

General

Course Key
15171

Course Rubric
DMSO

Course Number
2242

Course Title
Advanced Obstetric Sonography

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2) Maternal disease, pregnancy complications, and fetal abnormalities. Includes scanning techniques and protocols, patient history and laboratory data. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-2253 and DMSO-1267

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-2253 DMSO-1267;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 2253 and DMSO 1267

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Differentiate normal and abnormal fetal and maternal structures; evaluate patient history and laboratory data as it relates to ultrasound.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Describe the sonographic appearance of obstetric abnormalities, disease, pathology, and pathophysiology (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Describe ultrasound and its application in high risk pregnancy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Describe 3-D and 4-D evaluation of fetal anomalies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Describe the fetal syndromes and congenital anomalies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Describe the fetal therapy in obstetrics (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Describe the role of Doppler in Obstetrics (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Describe prenatal management of the fetus with a correctable defect (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Recognize, identify, and appropriately document normal and abnormal findings of sonography of the multiple-gestation pregnancy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Recognize, identify, and appropriately document normal and abnormal findings relating to artifacts, pitfalls, and normal variants (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 2243 - Advanced Ultrasound Physics

General

Course Key
12410

Course Rubric
DMSO

Course Number
2243

Course Title
Advanced Ultrasound Physics

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2) Theory and application of ultrasound principles. Includes advances in ultrasound technology. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-2305, DMSO-1366, and DSVT-1103

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-2305 DMSO-1366 DSVT-1103;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 2305, DMSO 1366, and DSVT 1103

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Describe ultrasound principles and instrumentation including modes of operation, techniques for recording sonographic images, and advances in ultrasound technology.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Describe the interaction of sound and soft tissues (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Explain sound production and propagation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate knowledge and understanding of acoustic physics, Doppler principles, and ultrasound instrumentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge and understanding of the interaction between ultrasound and tissue, and the probability of biological effects of clinical ultrasound (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Summarize the basic principles and techniques of ultrasound (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 2253 - Sonography of Superficial Structures

General

Course Key
15172

Course Rubric
DMSO

Course Number
2253

Course Title
Sonography of Superficial Structures

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-1) Detailed study of normal and pathological superficial structures as related to patient history, laboratory data, and scanning techniques and protocols. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-2242 and DMSO-1267

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-2242 DMSO-1267;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 2242 and DMSO 1267

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Identify sonographic appearance of normal and abnormal superficial structures; demonstrate ergonomic scanning techniques using standard protocol guidelines; and evaluate patient history and laboratory data as it relates to superficial structures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify sonographic appearance of normal and abnormal structures as they relate to invasive procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Identify sonographic appearance of normal and abnormal non-cardiac chest; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Identify sonographic appearance of normal and abnormal neck; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Identify sonographic appearance of normal and abnormal breast; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Identify sonographic appearance of normal and abnormal scrotum; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Identify sonographic appearance of normal and abnormal prostate; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Identify sonographic appearance of normal and abnormal anterior abdominal wall; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Identify sonographic appearance of normal and abnormal extremities; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Identify sonographic appearance of normal and abnormal neonatal brain and spinal cord; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Identify sonographic appearance of normal and abnormal neonatal hips; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Identify sonographic appearance of normal and abnormal musculoskeletal; identify appropriate scanning technique using standard protocol guidelines; and evaluate patient history and laboratory data as they relate to sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Describe how other modalities correlate to the superficial structures evaluated with sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
13. Demonstrate how to interact with physicians with oral and written communication using sonographic terms regarding sonographic findings, including formulating a differential diagnosis (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DMSO 2305 - Sonography of Obstetrics/Gynecology

General

Course Key
12708

Course Rubric
DMSO

Course Number
2305

Course Title
Sonography of Obstetrics/Gynecology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DSVT-1103, DMSO-2243, and DMSO-1366

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DSVT-1103 DMSO-2243 DMSO-1366;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DSVT 1103, DMSO 2243, and DMSO 1366

Course Learning Outcomes

Course Learning Outcomes

Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Identify the sonographic appearances of normal and abnormal female pelvis; identify normal and abnormal obstetrical findings; demonstrate ergonomic scanning techniques using standard protocols; and evaluate patient history and laboratory data as it relates to sonography.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Recognize, identify, and appropriately document the sonographic appearances of normal and abnormal female pelvis findings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Recognize, identify, and appropriately document the sonographic appearances of normal and abnormal obstetrical findings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate appropriate scanning techniques using standard protocols for obstetrical and gynecological pelvis sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Evaluate patient history and laboratory data as they relate to obstetrical and gynecological pelvis sonography (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Discuss the role of ultrasound in obstetrics (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Recognize, identify, and appropriately document the sonographic appearance of normal maternal, embryonic, and fetal anatomic structures during the first, second, and third trimesters (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Recognize, identify, and appropriately document first trimester complications (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Recognize, identify, and appropriately document complications during the second and third trimesters (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
9. Recognize, identify, and appropriately document obstetric measurements and gestational age (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
10. Recognize, identify, and appropriately document normal and abnormal fetal growth assessment by ultrasound (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
11. Describe prenatal diagnosis of congenital anomalies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
12. Recognize, identify, and appropriately document normal and abnormal findings of the placenta (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
13. Recognize, identify, and appropriately document normal and abnormal findings of the umbilical cord (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
14. Recognize, identify, and appropriately document normal and abnormal findings of the amniotic fluid and membranes (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
15. Recognize, identify, and appropriately document normal and abnormal findings of sonography of the multiple gestation pregnancy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
16. Recognize, identify, and appropriately document normal and abnormal findings relating to artifacts, pitfalls, and normal variants (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DNTA 1103 - Registered Dental Assistant Exam Review

General

Course Key
14685

Course Rubric
DNTA

Course Number
1103

Course Title
Registered Dental Assistant Exam Review

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0) Preparation for Dental Assistants to meet Texas State Board of Dental Examiners (TSBDE) examination requirements. Includes review of radiology, infection control, and jurisprudence and take the TSBDE exam upon completion of course.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify principles and theories relating to radiology, infection control, and jurisprudence; and take the TSBDE exam upon completion of course.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of general guidelines and industry standards for dental radiology by
    a. describing x-ray production and radiation protection (1a, 1b, 2c);
    b. describing radiographic infection control, patient education and positioning/exposure procedures (1a, 1b, 2c);
    c. explaining digital and manual radiographic image processing and duplication (1a, 1b, 2c);
    d. identifying radiographic anatomical landmarks and mounting techniques (1a, 1b, 2c);
    e. describing digital and extraoral radiographic exposures (1a, 1b, 2c);
    f. explaining radiographic quality assurance and HIPAA/Patient Privacy Rules (1a, 1b, 2c).
2. Demonstrate an understanding of general guidelines and industry standards for dental infection control by
    a. explaining the OSHA/Hazard Communication Standards (1a, 1b, 2c);
    b. describing infectious diseases, immunizations, hand hygiene, and personal protective equipment (1a, 1b, 2c);
    c. differentiating between disinfection and sterilization protocols (1a, 1b, 2c);
    d. differentiating between dental equipment infection control, handling hazardous materials, and infection control quality assurance procedures (1a, 1b, 2c).
3. Demonstrate an understanding of general guidelines and industry standards for dental jurisprudence by
    a. differentiating between jurisprudence and ethics (1a, 1b, 2c);
    b. identifying TSBDE Dental Practice Act sections applicable to dental assistants (1a 1b, 2c);
    c. identifying TSBDE Occupations Code and Regulations sections applicable to dental assistants (1a, 1b, 2c);
    d. explaining the TSBDE rules and regulations for dental assistants to become registered to expose dental x-rays (1a, 1b, 2c).
4. Demonstrate an understanding of obtaining TSBDE Registered Dental Assistant (RDA) certification by
    a. explaining TSBDE RDA examination requirements and process (1a, 1b, 2c);
    b. explaining TSBDE RDA application requirements and process (1a, 1b, 2c);
    c. explaining TSBDE RDA CEU's requirements and process (1a, 1b, 2c).

DNTA 1202 - Comm and Behavior in The Dental Office

General

Course Key
15116

Course Rubric
DNTA

Course Number
1202

Course Title
Communication and Behavior in the Dental Office

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) The study of human interaction and communication in the dental office.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Recognize human behaviors; and demonstrate techniques required to communicate effectively with patients and health professionals.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of human behavior in a professional setting by
    a. describing the aspect of cultural diversity and interpersonal relationships (1a, 1b, 1c, 2b);
    b. explaining how social attitudes influence behavior (1a, 1b, 1c, 2b);
    c. differentiating the levels of Maslow's hierarchy of needs (1a, 1b, 1c, 2b);
2. Demonstrate an understanding of communication pathways by
    a. describing the two parts of a communication message (1a, 1b, 2b, 2c);
    b. differentiating between verbal and non-verbal communications (1a, 1b, 1c, 2b);
    c. explaining the effectiveness of good listening skills (1a, 1b, 1c, 2b);
3. Demonstrate an understanding of interpersonal communications by
    a. describing how to effectively communicate with the dental team (1a, 1b, 1c, 2b);
    b. explaining the importance of effective patient communication (1a, 1b, 1c, 2b);
    c. identifying the different needs of patients in a patient-professional relationship (1a, 1b, 1c, 2b);
    d. describing the communication and behavior traits that meet patient needs (1a, 1b, 1c, 2b);
4. Demonstrate an understanding of effective telephone and written skills by
    a. describing telephone courtesy and etiquette (1a, 1b, 2b, 2c);
    b. explaining appropriate methods of handling different types of calls (1a, 1b, 2b, 2c);
    c. identifying telephone messaging systems (1a, 1b, 2c, 2d);
    d. describing business letter formats (1a, 1b, 2c);
    e. identifying the components of a business letter (1a, 1b, 2c);
5. Demonstrate an understanding of practice marketing by
    a. differentiating between internal and external marketing methods (1a, 1b, 2b, 2c);
    b. describing internal and external marketing tools (1a, 1b, 2b, 2c);

DNTA 1245 - Preventive Dentistry

General

Course Key
15117

Course Rubric
DNTA

Course Number
1245

Course Title
Preventive Dentistry

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3) The study of nutrition and preventable dental disease and community dental health.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Provide nutritional and preventive dental counseling; apply fluoride agents; demonstrate oral hygiene techniques; and participate in community dental health activities.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of dental caries and periodontal disease and impact oral health by
    a. describing dental caries, risk factors, and intervention methods (1a, 1b, 2c);
    b. explaining periodontal procedures including periodontal charting (1a, 1b, 2c).
2. Demonstrate an understanding of preventive dentistry components that improve dental health by
    a. performing oral hygiene techniques for patient use (1a, 1b, 2b, 2c);
    b. communicating nutritional counseling to promote good oral health (1a, 1b, 2b, 2c);
    c. describing medical issues that affect the oral health of special needs and medically compromised patients (1a, 1b, 2c);
    d. identifying the different drug schedules and associated complications (1a, 1b, 2c).
3. Demonstrate an understanding of preventive dentistry in pediatrics by
    a. differentiating between pediatric and adult dental procedures (1a, 1b, 2c);
    b. describing the dental sealants procedure in preventing caries development (1a, 1b, 2b, 2c);
    c. explaining the coronal polishing procedure in removing intrinsic stains (1a, 1b, 2b, 2c).
4. Demonstrate an understanding of the application of preventive dentistry in dental community health by
    a. researching and developing a dental community health topic for general presentation (1a, 1b, 2b, 2c);
    b. researching and developing a group dental community health topic for pediatric and special needs presentation (1a, 1b, 2b, 2c).

DNTA 1251 - Dental Office Management

General

Course Key
14688

Course Rubric	Course Number	Course Title
DNTA	1251	Dental Office Management
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Use computers/and or manual systems to process dental information and interpret and practice learned dental office management skills.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Perform dental office administrative duties; demonstrate accounting and financial operations; comply with federal and state guidelines regarding health care providers; and operate dental technology and software systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of the course, students will:

1. Demonstrate an understanding the dental office management role of the business assistant by:
    a. identifying general administrative functions and tasks (1a, 1b, 2c, 2d);
    b. describing effective communication and management skills (1a, 1b, 1c, 2b, 2c);
    c. explaining the financial relationship between business and clinical areas (1a, 1b, 2a, 2b, 2c);
    d. differentiating between compliance, operational and personnel manuals (1a, 1b, 2a, 2c, 2d).
2. Demonstrate an understanding of dental business office operating systems by:
    a. differentiating between types of electronic/manual patient files and records (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining electronic/manual appointment scheduling procedures (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing effective telephone management for appointment scheduling (1a, 1b, 1c, 2b, 2c);
    d. differentiating between electronic/manual recall management procedures (1a, 1b, 2a, 2c, 2d, 2e);
    e. explaining inventory management procedures (1a, 1b, 2a, 2c, 2d, 2e);
    f. describing equipment maintenance/repair records (1a, 1b, 2a, 2c, 2d, 2e);
    g. performing electronic dental business office tasks/procedures using Dentrix software (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding dental office financial accounts management by:
    a. differentiating between accounts receivable and accounts payable (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining the components of accounts receivable and payable (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing effective financial billing and collections procedures (1a, 1b, 2a, 2c, 2d, 2e);
    d. identifying payroll deductions and employer financial responsibilities (1a, 1b, 2c, 2d, 2e);
    e. differentiating between types of third-party dental insurance plans (1a, 1b, 2c);
    f. explaining filing/managing dental insurance claims procedures (1a, 1b, 2c, 2d, 2e).

DNTA 1301 - Dental Materials

General

Course Key
14689

Course Rubric	Course Number	Course Title
DNTA	1301	Dental Materials
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Composition, properties, procedures and safety standards related to dental materials.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Differentiate dental materials for specific procedures; manipulate materials; demonstrate the basic principles of laboratory safety and comply with OSHA and other regulatory agencies' standards.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of dental impression materials by
    a. differentiating between hydrocolloid, elastomeric, and occlusal (bite) registration impression materials and uses (1a, 1b, 2c);
    b. identifying the appropriate impressions' materials and trays (1a, 1b, 2c);
    c. explaining corresponding mixing techniques and applications (1a, 1b, 2c);
    d. performing irreversible hydrocolloid (alginate) impressions on a typodont (1a,1b, 2c);
    e. performing elastomeric and occlusal (bite) registration impressions on a typodont (1a, 1b, 2c);
    f. describing appropriate dental impression asepsis and infection control procedures (1a, 1b, 2c).
2. Demonstrate an understanding of laboratory equipment and procedures by
    a. identifying dental laboratory equipment and uses (1a, 1b, 2c);
    b. explaining dental laboratory safety precautions (1a, 1b, 2c);
    c. describing purpose and use of gypsum products (1a, 1b, 2c);
    d. performing pouring/trimming a set of study models using dental gypsum (1a,1b, 2c);
    e. differentiating between three types of custom impression trays (1a, 1b, 2c);
    f. identifying types of dental waxes and uses (1a, 1b, 2c).
3. Demonstrate an understanding of restorative and esthetic dental materials by
    a. describing the general properties of dental materials (1a, 1b, 2c);
    b. describing direct restorative and esthetic materials and uses (1a, 1b, 2c);
    c. differentiating between amalgam and composite properties and application (1a, 1b, 2c);
    d. identifying instrumentation for amalgam and composite placement (1a, 1b, 2c);
    e. identifying matrix materials and uses (1a, 1b, 2c);
    f. performing manipulation and placement of amalgam and composite materials (1a, 1b, 2c);
    g. explaining the use of glass ionomers and temporary restorative materials (1a, 1b, 2c);
    h. performing multiple methods of temporary crown fabrication (1a, 1b, 2c);
    i. describing function of indirect restorative and esthetic materials (1a, 1b, 2a);
    j. performing whitening tray fabrication and use of whitening products (1a, 1b, 2a).
4. Demonstrate an understanding of dental liners, bases, and bonding systems by
    a. differentiating between dental liners, bases and bonding systems (1a, 1b, 2c);
    b. describing the correlation between tooth sensitivity and material selection (1a, 1b, 2c);
    c. explaining the restorative uses of cavity liners, sealers, desensitizers and bases (1a, 1b, 2c);
    d. performing manipulation and placement of cavity liners, sealers, desensitizers, and bases on a typodont (1a, 1b, 2c);
    e. describing dentin and enamel bonding systems and adhesion process (1a, 1b, 2c);
    f. explaining the etchant, bonding, and application procedure steps (1a, 1b, 2c);
    g. performing manipulation and placement of a selected bonding system on a typodont (1a, 1b, 2c).
5. Demonstrate an understanding of permanent and temporary dental cements by
    a. differentiating between the types of cements (1a, 1b, 2c);
    b. describing the luting properties of selected cements (1a, 1b, 2c);
    c. identifying factors that affect final cementation (1a, 1b, 2c);
    d. explaining cement removal instrumentation and procedure steps (1a, 1b, 2c).

DNTA 1305 - Dental Radiology

General

Course Key
14691

Course Rubric	Course Number	Course Title
DNTA	1305	Dental Radiology
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to radiation physics, radiation protection, and the operation of radiographic equipment. Instruction in exposure, processing and mounting of dental radiographs, and study of federal and state safety and standard practices.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the theory of radiation physics; comply with radiation health and safety principles; apply radiographic techniques; expose, process, and mount radiographs; and demonstrate quality assurance practices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of radiation physics by
    a. identifying the properties of x-rays (1a, 1b, 2c);
    b. describing the production of x-rays (1a, 1b, 2c);
    c. differentiating between the types of radiation (1a, 1b, 2c);
    d. describing the characteristics of the x-ray beam (1a, 1b, 2c).
2. Demonstrate an understanding of radiation effects and safety by
    a. explaining the effect of ionization on human tissues (1, 1b, 2c);
    b. describing the biological effects of radiation and the latent period (1a, 1b, 2c);
    c. differentiating radiation safety processes for the equipment, operator, and patient (a, 1b, 2c);
    d. performing proper safety precautions for the operator and patient (1a, 1b, 2c).
3. Demonstrate an understanding of standard and digital imaging equipment by
    a. describing the standard x-ray unit components and function (1a, 1b, 2c);
    b. describing the digital imaging unit components and function (1a, 1b, 2c);
    c. differentiating between the standard and digital imaging devices (1a, 1b, 2c).
4. Demonstrate an understanding of infection control and operator/patient exposure preparation procedures by
    a. describing the CDC Guidelines for Infection Control in Dental Health-Care Settings (1a, 1b, 2c);
    b. explaining before and after exposure infection control procedures for operator/patient (1a, 1b, 2c);
    c. performing placement of treatment area and x-ray equipment barriers (1a, 1b, 2c, 2d);
    d. performing operator and patient preparation procedures for exposure (1a, 1b, 2c, 2d).
5. Demonstrate an understanding of intraoral imaging exposure by
    a. differentiating between digital, portable, and standard (film) imaging exposure techniques (1a, 1b, 2c, 2e);
    b. differentiating between intraoral bisecting and paralleling exposure techniques (1a, 1b, 2c);
    c. describing patient positioning and PID (cone)/tube head placement (1a, 1b, 2c);
    d. explaining image receptor placement for anterior and posterior exposure sequencing (1a, 1b, 2c);
    e. performing bitewing and full mouth survey exposure (1a, 1b, 2c, 2d);
    f. identifying exposure errors and exposure corrective actions (1a, 1b, 2c).
6. Demonstrate an understanding of extraoral imaging exposure by
    a. differentiating between panoramic and cone beam computed tomography (CBCT) (1a, 1b, 2c, 2e);
    b. describing patient positioning for panoramic and CBCT exposures (1a, 1b, 2c);
    c. explaining operation of panoramic and CBCT units (1a, 1b, 2c, 2e);
    d. performing panoramic and CBCT exposure (1a, 1b, 2c, 2d, 2e).
7. Demonstrate an understanding of digital and film image processing by
    a. differentiating between digital and film processing techniques (1a, 1b, 2c);
    b. describing procedure steps to scan and view digital dental images (1a, 1b, 2c);
    c. performing intraoral and extraoral scanning and viewing procedure steps (1a, 1b, 2c);
    d. explaining the film processing procedure steps and chemical components (1a, 1b, 2c);
    e. identifying processing errors and corrective actions (1a, 1b, 2c).
8. Demonstrate an understanding of legal and quality assurance considerations by
    a. differentiating between the laws that impact dental imaging exposure (1a, 1b, 2c);
    b. describing the components of a radiology quality assurance program (1a, 1b, 2c);
    c. performing quality control tests on radiographic equipment (1a, 1b, 2c, 2d).

DNTA 1311 - Dental Science

General

Course Key
14692

Course Rubric	Course Number	Course Title
DNTA	1311	Dental Science
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A fundamental study of anatomical systems with emphasis placed on head and neck anatomy. Topics include embryology of the teeth along with basic dental terminology.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe anatomical systems in terms of components and functions; identify teeth and related structures; recognize oral structures and tooth nomenclature; and explain the physiology and morphology of the deciduous/primary and the permanent/secondary teeth.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of oral embryology and histology and their correlating development phases and structures by
    a. explaining the embryonic development of the face and oral cavity (1a, 1b, 2c);
    b. identifying developmental disturbances of the jaws and dental structures (1a, 1b, 2c);
    c. describing the life cycle of a tooth (1a, 1b, 2c);
    d. identifying the parts of the tooth and its surrounding structures (1a, 1b, 2c);
    e. differentiating the chronological order of eruption for the primary and permanent dentition (1a, 1b, 2c).
2. Demonstrate an understanding of head, neck, and oral anatomy and their corresponding structures by
    a. identifying bones and anatomical landmarks of the skull and face (1a, 1b, 2c);
    b. identifying muscles of facial expression and mastication (1a, 1b, 2c);
    c. describing location and function of the major salivary glands, blood supply, trigeminal nerve, and lymph nodes of the head and neck (1a, 1b, 2c);
    d. identifying anatomical landmarks of the face and oral cavity (1a, 1b, 2c).
3. Demonstrate an understanding of the dentitions and tooth morphology by
    a. differentiating between the primary and permanent dentitions (1a, 1b, 2c);
    b. identifying the names of the teeth and their functions (1a, 1b, 2c);
    c. describing the location and surfaces for the primary and permanent dentitions (1a, 1b, 2c).
4. Demonstrate an understanding of oral pathology and the impact of disease on the oral tissues by
    a. differentiating between acute and chronic inflammation and their signs (1a, 1b, 2c);
    b. describing diseases of the oral tissues (1a, 1b, 2c);
    c. identifying development disorders of the jaws and dentition (1a, 1b, 2c).

DNTA 1315 - Chairside Assisting

General

Course Key
14693

Course Rubric	Course Number	Course Title
DNTA	1315	Chairside Assisting

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A study of pre-clinical chairside assisting procedures, instrumentation, OSHA and other regulatory agencies' standards.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Select armamentarium for introductory dental skills; implement infection and hazard control protocol; practice equipment safety; perform equipment maintenance; and demonstrate specific pre-clinical chairside assisting procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of asepsis and disinfection by
    a. describing steps in preparing instruments for sterilization and disinfection procedures to comply with OSHA and manufacturer's specifications (1a, 1b, 2c, 2d);
    b. describing appropriate instrumentation preparation prior to sterilization (1a, 1b, 2c);
    c. describing the operation and use of the ultrasonic cleaner (1a, 1b, 2c);
    d. identifying the correct time, temperature, pressure, and monitoring procedures used for moist heat (autoclave) and flash sterilization (1a, 1b, 2c);
    e. describing proper storage and handling of sterilized instruments (1a, 1b, 2c);
    f. explaining the procedure for biological monitoring (1a, 1b, 2c, 2d);
    g. differentiating current OSHA regulations pertaining to asepsis, chemical, and waste management (1a, 1b, 2c, 2d).
2. Demonstrate an understanding of the prevention of disease transmission and cross-contamination by
    a. performing correct handwashing techniques (1a, 1b, 2c);
    b. performing the donning and doffing of appropriate personal protective equipment (1a, 1b, 2c);
    c. performing appropriate setup breakdown and protective barriers placement for the dental chair, dental unit, and dental equipment in the operatory (1a, 1b, 2c, 2d);
    d. performing proper breakdown and surface disinfection techniques for the dental chair, dental unit, and dental equipment in the operatory (1a, 1b, 2c, 2d);
    e. explaining the daily maintenance procedures performed by the dental assistant (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of patient information and assessment by
    a. describing personal health information (PHI) and its application to HIPAA (1a, 1b, 2c);
    b. identifying the components of the electronic/manual patient chart and dental record (1a, 1b, 2c);
    c. recording a patient's medical health history, blood pressure, and pulse (1a, 1b, 2c);
    d. describing advanced patient monitoring procedures and assessment (1a, 1b, 2c, 2d).
4. Demonstrate a basic understanding of oral diagnosis and treatment planning by
    a. differentiating the numbering system of teeth for the Universal (primary and permanent), Palmer, and International methods (1a, 1b, 2c, 2d);
    b. identifying the six classifications of cavities (1a, 1b, 2c);
    c. charting existing conditions of the teeth/oral cavity using appropriate charting abbreviations (1a, 1b, 2c);
    d. explaining the purpose and types of dental treatment plans (1a, 1b, 2c).
5. Demonstrate an understanding of delivering dental care by
    a. describing four-and six-handed dentistry (1a, 1b, 2c);
    b. explaining the clock concept and various positions for the patient, operator, and assistant (1a, 1b, 2c);
    c. performing the proper positioning (posture) of the operator (1a, 1b, 2c);
    d. performing the proper positioning (posture) of the assistant (1a, 1b, 2c).
6. Demonstrate an understanding of dental hand instruments, procedure trays, and handpieces by
    a. describing appropriate armamentarium for specific chairside procedures (1a, 1b, 2c);
    b. describing preset trays, tubs, and color-coding systems (1a, 1b, 2c);
    c. explaining the use of dental handpieces in dental procedures (1a, 1b, 2c);
    d. performing proper maintenance of all handpieces (1a, 1b, 2c);
    e. differentiating between the various types of burs and their function (1a, 1b, 2c).
7. Demonstrate an understanding of moisture control in the oral cavity by
    a. performing oral evacuation/tissue retraction with the high-volume evacuator and saliva ejector (1a, 1b, 2c);
    b. performing rinsing of the oral cavity with the air-water syringe (1a, 1b, 2c);
    c. explaining isolation techniques to decrease moisture during dental procedures (1a, 1b, 2c);
    d. describing dental dam placement for anterior and posterior teeth (1a, 1b, 2c).
8. Demonstrate an understanding of anesthesia and pain control by
    a. explaining the importance of pain control in dentistry (1a, 1b, 2c);
    b. describing the composition and application of topical anesthetics (1a, 1b, 2c);
    c. performing the placement of a topical anesthetic agent (1a, 1b, 2c);
    d. describing the composition and application of local anesthetic agents (1a, 1b, 2c);
    e. performing the preparation and management of a local anesthetic setup (1a, 1b, 2c).

DNTA 1353 - Dental Assisting Applications

General

Course Key
14694

Course Rubric	Course Number	Course Title
DNTA	1353	Dental Assisting Applications

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) An expanded study of dental assisting techniques with emphasis on four-handed dentistry and utilization of armamentarium for general practice and specialty procedures. Recommended Prerequisite(s): DNTA 1315

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Recommended Prerequisite

10
A Requirement block where all subrequirements are required

Take dnta-1315;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): DNTA 1315

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Assemble tray setups and materials for designated general and specialty procedures; record patient chart information; maintain clear field of vision including isolation techniques; utilize chairside ergonomics; and apply OSHA and other regulatory agencies' standards.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of general and specialty patient procedures by
    a. performing a review of the electronic/manual patient chart for treatment;
    b. performing patient medical health history, blood pressure, and pulse assessment;
    c. identifying basic oral exam instrumentation, materials, and tray setup;
    d. explaining proper ergonomic positioning for the assistant and operator;
    e. performing oral evacuation/tissue retraction with the high volume evacuator and saliva ejector;
    f. performing rinsing of the oral cavity with the air/water syringe;
    g. explaining isolation techniques for moisture control during dental procedures;
    h. differentiating between general/specialty dental procedures;
    i. differentiating patient postoperative instructions for general/specialty procedures.
2. Demonstrate an understanding of the dental assistant's role in amalgam and composite restoration procedures by
    a. differentiating between restoration classifications for amalgam and composite restorations;
    b. describing instrumentation, materials, and tray setup for Class I and II amalgam restorations;
    c. identifying instrumentation, materials, and tray setup for composite (direct veneer) restorations;
    d. differentiating between Class III and IV composite restoration procedure steps;
    e. assembling an armamentarium tray setup for a simulated composite restoration procedure.
3. Demonstrate an understanding of the dental assistant's role in fixed and removable prosthodontic restoration procedures by
    a. differentiating between fixed and removable prosthodontic restorations;
    b. differentiating between full, partial, and overdentures;
    c. differentiating between various indirect fixed prosthodontic restorations;
    d. identifying full metal or porcelain-fused-to-metal crown and fixed bridge instrumentation, materials, and tray setups;
    e. describing crown and bridge restoration procedure steps;
    f. explaining shade selection procedure;
    g. assembling an armamentarium tray setup for a simulated crown and bridge procedure;
    h. identifying necessary information required on the laboratory prescription form;
    i. differentiating between manual and computer-assisted impression restoration fabrication process.
4. Demonstrate an understanding of the dental assistant's role in oral and maxillofacial surgery procedures by
    a. differentiating between various oral and maxillofacial procedures;
    b. identifying specialized oral surgery instruments and accessories;
    c. describing function/use of specialized oral surgery instruments and accessories;
    d. identifying surgical extraction instrumentation, materials, and tray setup;
    e. describing surgical extraction procedure steps;
    f. assembling an armamentarium tray setup for a simulated surgical extraction procedure;
    g. explaining suture removal procedure steps;
    h. assembling an armamentarium tray setup for a simulated suture removal procedure;
    i. describing post-surgical care for bleeding, pain management, and swelling;
    j. explaining alveolar osteitis (dry socket) treatment.
5. Demonstrate an understanding of the dental assistant's role in endodontic procedures by
    a. differentiating between the various endodontic procedures;
    b. describing endodontic diagnosis techniques;
    c. differentiating between pulp capping, pulpotomy, and pulpectomy;
    d. identifying specialized endodontic instruments and accessories;
    e. describing function/use of specialized endodontic instruments and accessories;
    f. identifying endodontic (root canal) instrumentation, materials, and tray setup;
    g. describing endodontic root canal procedure steps;
    h. assembling an armamentarium tray setup for a simulated endodontic (root canal) procedure.
6. Demonstrate an understanding of the dental assistant's role in dental implants and orthodontic specialty procedures by
    a. describing types of dental implants;
    b. describing the dental implant surgical and restorative procedure steps;
    c. explaining the corrective orthodontic process and treatment;
    d. identifying specialized orthodontic instruments and accessories.

DNTA 1360 - Clinical - Dental Assisting/Assistant

General

Course Key
14696

Course Rubric
DNTA

Course Number
1360

Course Title
Clinical - Dental Assisting/Assistant

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-14) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Required Prerequisite(s): Coordinator Approval

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Coordinator Approval

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

1. Demonstrate an understanding of the dental assistant's role in the dental clinical setting by
    a. differentiating the roles of the dental team (1a, 1b, 2c, 2b);
    b. describing the characteristics of a professional dental assistant (1a, 1b, 1c, 2b, 2c);
    c. explaining the professional code of ethics for a dental assistant (1a, 1b, 1c, 2b, 2c);
    d. identifying the State Board of Dental Examiners dental assistant rules and regulations (1a, 1b, 2c).
2. Demonstrate an understanding of applied general patient assessment skills in the dental clinical setting by
    a. integrating dental terminology into daily procedures (1a, 1b, 2c);
    b. assembling patient records for treatment (1a, 1b, 2c);
    c. receiving and preparing the patient for dental treatment (1a, 1b, 2c);
    d. performing a review of patient's medical and dental history (1a, 1b, 2c);
    e. recording patient vital signs (1a, 1b, 2c);
    f. exposing, processing, and labeling dental x-rays (1a, 1b, 2c);
    g. taking alginate impressions for study models (1a, 1b, 2c);
    h. charting existing oral conditions and anomalies (1a, 1b, 2c);
    i. reviewing patient oral hygiene techniques (1a, 1b, 2c);
    j. communicating nutritional and dietary counseling (1a, 1b, 2c).
3. Demonstrate an understanding of applied general chairside skills in the dental clinical setting by
    a. preparing and assembling armamentarium procedure trays (1a, 1b, 2c);
    b. placing and/or removing dental dam when indicated (1a, 1b, 2c);
    c. maintaining field of vision with use of oral evacuation (1a, 1b, 2c);
    d. passing and retrieving procedure instruments in sequential order (1a, 1b, 2c);
    e. dispensing and preparing procedure appropriate dental materials (1a, 1b, 2c);
    f. applying infection control techniques to maintain asepsis of instruments and equipment (1a, 1b, 2c);
    g. applying acquired knowledge and clinical skills in the dental clinical setting (1a, 1b, 2b, 2c).
4. Demonstrate an understanding of applied specialty chairside skills in the dental clinical setting by
    a. removing periodontal pack and/or surgical sutures (1a, 1b, 2c);
    b. fabricating and cementating of a temporary crown (1a, 1b, 2c);
    c. inserting or removing medicinal temporary fillings with hand instruments (1a, 1b, 2c);
    d. receiving removable dental prostheses for cleaning or repair (1a, 1b, 2c);
    e. performing dental laboratory procedures and tasks (1a, 1b, 2c);
    f. performing business office procedures and tasks (1a, 1b, 2c).
5. Demonstrate an understanding of seeking dental assisting career and employment opportunities by
    a. determining career goals and professional objectives (1a, 1b, 1c, 2b, 2c);
    b. identifying marketable certifications and skills (1a, 1b, 1c, 2b, 2c);
    c. developing a cover letter and resume (1a, 1b, 1c, 2b, 2c);
    d. assessing interview communication and presentation skills (1a, 1b, 1c, 2b, 2c).

DRAM 1120 - Theater Practicum I

General

Course Key
16345

Course Rubric
DRAM

Course Number
1120

Course Title
Theatre Practicum I

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 1121 - Theater Practicum II

General

Course Key
16346

Course Rubric
DRAM

Course Number
1121

Course Title
Theatre Practicum II

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 1310 - Theater Appreciation

General

Course Key
16347

Course Rubric
DRAM

Course Number
1310

Course Title
Theater Appreciation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Survey of theater including its history, dramatic works, stage techniques, production procedures, and relation to other art forms. Participation in productions may be required.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 1330 - Stagecraft I

General

Course Key
16348

Course Rubric
DRAM

Course Number
1330

Course Title
Stagecraft I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Study and application of the methods and components of theatrical production which may include one or more of the following: theater facilities, scenery construction and painting, properties, lighting, costume, makeup, sound, and theatrical management.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 1351 - Acting I

General

Course Key
16349

Course Rubric
DRAM

Course Number
1351

Course Title
Acting I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) An introduction to the fundamental principles and tools of acting as used in auditions, rehearsals, and performances. This may include ensemble performing, character and script analysis, and basic theater terminology. This exploration will emphasize the development of the actor's instrument: voice, body and imagination.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 1352 - Acting II

General

Course Key
16350

Course Rubric
DRAM

Course Number
1352

Course Title
Acting II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Exploration and further training within the basic principles and tools of acting, including an emphasis on critical analysis of oneself and others. The tools include ensemble performing, character and script analysis, and basic theater terminology. This will continue the exploration of the development of the actor's instrument: voice, body and imagination.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 2120 - Theater Practicum III

General

Course Key
16351

Course Rubric
DRAM

Course Number
2120

Course Title
Theatre Practicum III

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 2121 - Theater Practicum IV

General

Course Key
16352

Course Rubric
DRAM

Course Number
2121

Course Title
Theatre Practicum IV

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3)) Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 2331 - Stagecraft II

General

Course Key
16353

Course Rubric
DRAM

Course Number
2331

Course Title
Stagecraft II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4). Continued study and application of the methods and components of theatrical production which may include one or more of the following: theater facilities, scenery construction and painting, properties, lighting, costume, makeup, sound and theatrical management. Topics will alternate with DRAM 1330.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 2336 - Voice for The Actor

General

Course Key
16354

Course Rubric
DRAM

Course Number
2336

Course Title
Voice for the Actor

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Principles, practices, and exercises in awareness, relaxation, freedom, flexibility, and expressiveness in the actor's vocal instrument.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 2355 - Script Analysis

General

Course Key
16355

Course Rubric
DRAM

Course Number
2355

Course Title
Script Analysis

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Examination of foundational skills for understanding the structure and content of play scripts for interpretation and conceptualization in theater productions by directors, designers, actors, and technicians. Introduces students to significant plays in the history of dramatic literature in the playwright's social and cultural context.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DRAM 2366 - Film Appreciation

General

Course Key
16356

Course Rubric
DRAM

Course Number
2366

Course Title
Film Appreciation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2) Survey and analyze cinema including history, film techniques, production procedures, selected motion pictures, and cinema's impact on and reflection of society. Students may not earn credit for both DRAM-2366 and COMM-2366.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

DSVT 1103 - Introduction to Vascular Technology

General

Course Key
12404

Course Rubric
DSVT

Course Number
1103

Course Title
Introduction to Vascular Technology

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3) Introduction to basic non-invasive vascular theories. Emphasizes image orientation, transducer handling, and identification of anatomic structures. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-2305, DMSO-2243, and DMSO-1366

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-2305 DMSO-2243 DMSO-1366;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 2305, DMSO 2243, and DMSO 1366

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Describe fundamental vascular concepts of duplex and nonimaging procedures including positioning the patient, equipment, and other devices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify arteries of the upper and lower extremities and the branches of the abdominal aorta (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Differentiate between arterial and venous wall anatomy at the microscopic level (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Identify the vessels in the extracranial and intracranial cerebrovascular system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Identify the central, upper, and lower extremity deep and superficial veins, and list the major perforating veins in the lower extremity (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

DSVT 1300 - Principles of Vascular Technology

General

Course Key
15173

Course Rubric
DSVT

Course Number
1300

Course Title
Principles of Vascular Technology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Introduction to non-invasive vascular technology, including anatomy, physiology, 2D imaging, and Doppler. Emphasis on performing basic arterial and venous imaging. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-1355 and DMSO-1367

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-1355 DMSO-1367;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 1355 and DMSO 1367

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Describe protocols for performing non-invasive vascular exams; explain measurement and grading criteria; and perform basic non-invasive peripheral vascular exams, including arterial and venous studies with measurements.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe standard protocol guidelines for performing non-invasive vascular exams, with emphasis on the following imaging vascular studies:
    a. Renal/aorta ratio;
    b. TCD exam;
    c. Abdominal vascular exam;
    d. Extracranial cerebrovascular (Carotid) exam;
    e. Lower extremity arterial exam;
    f. Lower extremity venous exam;
    g. Upper extremity venous exam;
    h. Upper extremity arterial exam.
2. Explain measurement and grading criteria for the following procedures:
    a. Aorta/renal ratios;
    b. Resistive index;
    c. Pulsatility index;
    d. Internal carotid artery to common carotid artery ratio;
    e. Percentage velocity change across stenosis for grading arterial lesions;
    f. Area and diameter reduction measurements;
    g. Knowledge of normal and abnormal vascular flow patterns and waveform morphology.
3. Describe fundamental vascular concepts of duplex and non-imaging procedures including positioning the patient, equipment, and other devices.
4. Explain physiology, pathology, and pathophysiology in relation to arterial, venous, and special circulations.
5. Describe how other modalities correlate to the vascular systems evaluated with sonography.
6. Demonstrate knowledge and understanding of clinical pharmacology as it relates to vascular evaluation and stress testing.
7. Demonstrate how to interact with physicians with oral and written communication using sonographic terms regarding sonographic findings, including formulating a differential diagnosis.

DSVT 1364 - Pract-Diag Med Son/Son Ultrsnd Tech

General

Course Key
12419

Course Rubric
DSVT

Course Number
1364

Course Title
Practicum (or Field Experience) Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-2130 and DSVT-2335

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-2130 DSVT-2335;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 2130 and DSVT 2335

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of acoustic physics, Doppler ultrasound principles, and ultrasound instrumentation.
2. Demonstrate basic medical techniques and patient care.
3. Demonstrate knowledge and understanding of human gross anatomy and sectional anatomy.
4. Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology.
5. Demonstrate the scanning planes, methods, and protocols used in sonography.
6. Describe the operations of the assigned clinical facility service area.
7. Demonstrate the professional qualities pertinent to patient care.
8. Recognize the importance of, and practice ergonomically correct scanning techniques.
9. Review sonographic order, review prior studies, review lab results, review the clinical history, obtain the patient history, and prepare patient for the sonography examination by explaining the procedure, how the patient will receive results, and placing the patient in the appropriate patient position to begin the scan.
10. Demonstrate knowledge and skills consistent with an entry-level sonographer for the following vascular examinations and evaluations:
    a. Segmental exam;
    b. TCD exam;
    c. Abdominal vascular exam;
    d. Extracranial cerebrovascular (Carotid) exam;
    e. Lower extremity arterial exam;
    f. Lower extremity venous exam;
    g. Upper extremity venous exam;
    h. Upper extremity arterial exam.
11. Integrate sonographic findings with clinical history, patient history, prior imaging studies, and lab results and formulate the sonographic impression.
12. Present the case to the radiologist and articulate a differential diagnosis.
13. Demonstrate professional judgement and discretion in relation to patient care.

DSVT 2335 - Advanced Vascular Technology

General

Course Key
15174

Course Rubric
DSVT

Course Number
2335

Course Title
Advanced Vascular Technology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A study of advanced vascular concepts such as digital intraoperative, intravascular, abdominal vascular, graft surveillance, vascular interventions, and research. Emphasizes case studies, technical reporting and preliminary interpretation. Required Prerequisite: Admission into Diagnostic Medical Sonography Program Required Corequisites: DMSO-2130 and DSVT-1364

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE DMSO-2130 DSVT-1364;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): Admission into Diagnostic Medical Sonography Program
Required Corequisite(s): DMSO 2130 and DSVT 1364

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the following resources: Workforce Education Course Manual (WECM); the current content specifications for the examinations from the American Registry for Diagnostic Medical Sonographers (ARDMS); the National Education Curriculum (NEC); and, the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography.

End-of-Course Outcomes: Evaluate current diagnostic trends in non-invasive vascular technology; list the indications, contraindications, technical aspects, and standard protocols for each of the advanced modalities; perform advanced vascular procedures utilizing standard protocols and measurements; and discuss case studies and current literature.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe standard protocol guidelines and demonstrate proficiency for performing non-invasive vascular exams, with emphasis on the following physiologic vascular studies:
    a. Transcranial Doppler exam;
    b. Intracranial cerebrovascular (Carotid) exam;
    c. Extracranial cerebrovascular (Carotid) exam;
    d. Extremity arterial upper and lower exam;
    e. Extremity venous competency exam;
    f. Transthoracic outlet exam.
2. Explain measurement and grading criteria for the following procedures:
    a. Aorta/renal ratios;
    b. Resistive index;
    c. Pulsatility index;
    d. Internal carotid artery to common carotid artery ratio;
    e. Percentage velocity change across stenosis for grading arterial lesions;
    f. Area and diameter reduction measurements;
    g. Knowledge of normal and abnormal vascular flow patterns and waveform morphology.
3. Describe fundamental vascular concepts of duplex and non-imaging procedures including positioning the patient, equipment, and other devices.
4. Explain physiology, pathology, and pathophysiology in relation to arterial, venous, and special circulations.
5. Describe how other modalities correlate to the vascular systems evaluated with sonography.
6. Understand the fundamental elements for implementing a quality assurance and improvement program, and the policies, protocols and procedures for the general function of the ultrasound laboratory.
7. Demonstrate knowledge and understanding of clinical pharmacology as it relates to vascular evaluation and stress testing.
8. Demonstrate how to interact with physicians with oral and written communication using sonographic terms regarding sonographic findings, including formulating a differential diagnosis.

ECON 2301 - Principles of Macroeconomics

General

Course Key
16359

Course Rubric
ECON

Course Number
2301

Course Title
Principles of Macroeconomics Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy. Emphasis on the U.S. economy. Required for business and economics majors.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ECON 2301 - Principles of Macroeconomics Honors

General

Course Key
16357

Course Rubric
ECON

Course Number
2301

Course Title
Principles of Macroeconomics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy. Emphasis on the U.S. economy. Required for business and economics majors.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

ECON 2302 - Principles of Microeconomics

General

Course Key
16360

Course Rubric
ECON

Course Number
2302

Course Title
Principles of Microeconomics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Required for business and economics majors. Recommended Prerequisite: ECON-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take econ-2301 econ-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ECON 2302 - Prin of Microeconomics Honors

General

Course Key
16361

Course Rubric
ECON

Course Number
2302

Course Title
Principles of Microeconomics Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Required for business and economics majors. Recommended Prerequisite: ECON-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ECON-2301(8363) econ-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ECRD 1271 - Electrocardiography

General

Course Key
15993

Course Rubric
ECRD

Course Number
1271

Course Title
Electrocardiography

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-4) Fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

EDUC 1300 - Learning Framework

General

Course Key
16362

Course Rubric
EDUC

Course Number
1300

Course Title
Learning Framework

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A study of the research and theory in the psychology of learning, cognition, and motivation; factors that impact learning; and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Students may NOT earn credit for both EDUC 1300 and PSYC 1300.) (NOTE: While traditional study skills courses include some of the same learning strategies -e.g., note-taking, reading, test preparation etc. - as learning framework courses, the focus of study skills courses is solely or primarily on skill acquisition. Study skills courses, which are not under-girded by scholarly models of the learning process, are not considered college-level, and, therefore, are distinguishable from Learning Framework courses.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

EDUC 1301 - Introduction to The Teaching Profession

General

Course Key
16363

Course Rubric
EDUC

Course Number
1301

Course Title
Introduction to the Teaching Profession

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2) An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations and provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. Course content should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

EDUC 2301 - Introduction to Special Populations

General

Course Key
16364

Course Rubric
EDUC

Course Number
2301

Course Title
Introduction to Special Populations

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2) An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-12 special populations and should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Must include a minimum of 16 contact hours of field experience in P-12 classrooms with special populations. Required Prerequisite: EDUC-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE EDUC-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ELMT 1402 - Solar Photovoltaic Systems

General

Course Key
15118

Course Rubric
ELMT

Course Number
1402

Course Title
Solar Photovoltaic Systems

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Design and installation of solar photovoltaic systems and their applications. Required Prerequisite: CETT-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CETT-1409
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CETT 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform field site evaluations; design solar photovoltaic array to meet customer requirements; investigate certification requirements; install and troubleshoot systems; and employ techniques for successful customer interaction.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the six basic forms of energy (1a, 1b).
2. Define potential and kinetic energy (1a, 1b).
3. Explain renewable and non-renewable energy sources (1a, 1b).
4. Define conservation of energy (1a, 1b).
5. Explain the different types of solar energy technologies utilizing solar radiation by
    a. differentiating between solar radiance and solar irradiation (1a, 1b);
    b. describing the photovoltaic effect and the fundamental operation of PV devices (1a, 1b);
    c. comparing the advantages and disadvantages of installing a PV system (1a, 1b).
6. Describe the purposes and functions of the major components in PV systems (2a, 2d).
7. Evaluate how array orientation affects solar energy received by solar collectors (2a, 2c, 2d).
8. Install and operate a power converter to convert DC power to AC power (2a, 2c, 2d, 2e).
9. Determine the amount of power in demand and the ability of a system to deliver that power (2a, 2c, 2d).
10. Demonstrate how to distribute power safely and effectively (2a, 2c, 2d, 2e).
11. Install and operate a solar electrical system to deliver alternative energy more effectively by
    a. installing and operating a charge controller in a solar-powered electrical system (2a, 2c, 2d, 2e);
    b. installing and verifying proper grounding of critical circuits and devices in an alternative energy system (2a, 2c, 2d, 2e);
    c. verifying proper operation of circuit protection devices during industrial servicing and/or maintenance operations (2a, 2c, 2d, 2e).
12. Inspect, troubleshoot, debug, and repair a standalone solar electrical system (2a, 2c, 2d, 2e).

ELMT 2337 - Electronic-Troubleshooting/Serv/Repair

General

Course Key
16503

Course Rubric
ELMT

Course Number
2337

Course Title
Electronic Troubleshooting, Service and Repair

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventative maintenance. Emphasis on safety and use of test equipment. May be offered as a capstone course. Required Prerequisites: CETT-1409 or CETT-1403 and CETT-1405 or SMFT-1343 Recommended Prerequisites: CETT-1441 and CETT-1445

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): CETT-1409 or CETT-1403 and CETT-1405 or SMFT-1343

Recommended Prerequisite(s): CETT-1441 and CETT-1445

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize test equipment for problem analysis; find test point locations from schematics or prints; isolate faults and repair; and perform routine maintenance.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic troubleshooting fundamentals by
    a. defining the different levels of system troubleshooting (1a, 1b, 2c, 2e);
    b. explaining proper troubleshooting procedures (1a, 1b, 1c, 2c, 2d, 2e);
    c. practicing appropriate industry safety practices while troubleshooting and performing repairs and service (1a, 1b, 1c, 2c, 2d, 2e);
    d. applying Ohm's Law and Kirchoff's Current and Voltage Laws to different circuit configurations (1a, 1b, 2c, 2e).
2. Demonstrate an understanding of the use and application of meters while troubleshooting and repairing systems by
    a. listing the precautions needed in making proper measurements (1a, 1b, 2c, 2e);
    b. performing both voltage and current measurements properly (1a, 1b, 2a, 2c, 2e);
    c. analyzing the results of the measurements to determine the correct repair process (1a, 1b, 2c, 2d, 2e);
    d. utilizing the different types of tachometers when measuring motors (1a, 1b, 2a, 2c, 2e);
    e. evaluating the measurements of fuses and circuit breakers (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of the proper methods of troubleshooting electrical motors and starters by
    a. explaining the use of contactors and motor starters (1a, 1b, 2c, 2d, 2e);
    b. analyzing the application of solid state relays (1a, 1b, 2c, 2d, 2e);
    c. comparing motor nameplate ratings (1a, 1b, 2a, 2c, 2e);
    d. explaining why overheating of a motor is symptomatic (1a, 1b, 2a, 2c, 2d, 2e);
    e. differentiating between DC and AC motor problems (1a, 1b, 2a, 2c, 2e).
4. Demonstrate an understanding of the different forms of power distribution through transformers by
    a. comparing the voltages supplied with either the Wye or Delta connection configurations (1a, 1b, 2a, 2c, 2d, 2e);
    b. calculating for correct transformer load size and balancing (1a, 1b, 2a, 2c, 2d, 2e);
    c. identifying the results of nonlinear loading (1a, 1b, 2c, 2d, 2e);
    d. analyzing other power problems such as sags, swells, under voltage, and over voltage (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of troubleshooting of motor control circuits by
    a. identifying the cause of power loss (1a, 1b, 2c, 2d, 2e);
    b. recognizing the multiphase motor configuration along with its associated circuit protection (1a, 1b, 2c, 2d, 2e);
    c. locating the source of the power loss and providing corrective action (1a, 1b, 2c, 2e);
    d. listing the advantages of using pulse width modulation over other control methods (1a, 1b, 2c, 2d, 2e);
    e. listing the safety guidelines that should be observed during troubleshooting (1a, 1b, 1c, 2c, 2d, 2e).
6. Demonstrate an understanding of the different types of lighting along with applications and troubleshooting techniques by
    a. listing the different types of illumination along with their applications (1a, 1b, 2a, 2c, 2e);
    b. identifying the proper lighting levels for a given situation or location (1a, 1b, 2c, 2d, 2e);
    c. identifying the different configurations of bulbs, along with safety factors (1a, 1b, 1c, 2a, 2c, 2e);
    d. determining the maximum lighting load that could be placed on a given circuit (1a, 1b, 2a, 2c, 2e);
    e. demonstrating the proper testing technique for different lighting configurations (1a, 1b, 2a, 2c, 2d, 2e).
7. Demonstrate an understanding of the proper troubleshooting process when dealing with solenoids, heating elements, and mechanical/solid state switches by
    a. identifying the schematic symbols for each of the system components (1a, 1b, 2a, 2c, 2e);
    b. explaining the function of different solenoids (1a, 1b, 2a, 2c, 2e);
    c. determining which cause and repair agrees with a given problem/symptom (1a, 1b, 2c, 2d, 2e);
    d. applying the proper troubleshooting technique for solid state switches (1a, 1b, 2c, 2d, 2e).
8. Apply the basic fundamentals of solid state devices to repair malfunctioning equipment by
    a. explaining diodes, transistors, and thyristors (1a, 1b, 2a, 2c, 2e);
    b. applying test equipment properly to ensure proper operation of the solid state devices (1a, 1b, 2a, 2c, 2e);
    c. performing successful testing upon diodes, transistors, and thyristors (1a, 1b, 2c, 2d, 2e).
9. Demonstrate an understanding of the function of programmable logic controllers (PLC) by
    a. developing a ladder logic program to control specific output devices (1a, 1b, 2a, 2c, 2e);
    b. listing the major components of the PLC systems (1a, 1b, 2a, 2c, 2e);
    c. explaining how to use the LEDs on the PLC for troubleshooting (1a, 1b, 2c, 2d ,2e);
    d. identifying the troubleshooting techniques for inputs and outputs (1a, 1b, 2c, 2d, 2e);
    e. building a troubleshooting flow chart for the PLC system (1a, 1b, 2a, 2c, 2d, 2e).
10. Demonstrate an understanding of the value of renewable energy by
    a. describing the advantages of using a geothermal system for heating and cooling (1a, 1b, 1c, 2a, 2c, 2e);
    b. developing a troubleshooting process for geothermal systems, wind systems, and photovoltaic systems (1a, 1b, 2c, 2d, 2e);

c. explaining the process needed to determine which alternative energy system would meet a given application (1a, 1b, 2c, 2d, 2e).

ELPT 1311 - Basic Electrical Theory

General

Course Key
14701

Course Rubric
ELPT

Course Number
1311

Course Title
Basic Electrical Theory

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain atomic structure and basic values such as voltage, current, resistance, and power; determine electrical values for combination circuits in direct current (DC) and alternating current (AC) containing resistance, inductance, and capacitance; summarize the principles of magnetism; calculate voltage drop based on conductor length, type of material, and size; and utilize electrical measuring instruments.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the current theory of electron flow by
    a. describing atomic structure;
    b. defining electrical charge;
    c. differentiating between conventional and electron current flow.
2. Define electrical terms by
    a. defining voltage;
    b. defining current;
    c. defining amperage.
3. Demonstrate an understanding of DC circuits by
    a. using Ohm's law to determine resistance, amperage, and voltage values;
    b. using Kirchoff's current law to determine node currents;
    c. using the power formula to calculate circuit wattages.
4. Connect DC circuits by
    a. connecting series circuits;
    b. connecting parallel circuits;
    c. connecting combination circuits.
5. Demonstrate the proper use of a multimeter by
    a. connecting the meter to measure amperage in a series and parallel circuit;
    b. connecting the meter to measure voltage;
    c. connecting the meter to measure resistance.
6. Demonstrate an understanding of the generation of AC electricity by
    a. explaining the current theory of magnetism;
    b. identifying sine wave properties.
7. Demonstrate an understanding of the effect of inductance in an AC circuit by
    a. defining inductance;
    b. defining inductive reactance.
8. Analyze inductive circuits by
    a. calculating inductive reactance;
    b. calculating inductive power;
    c. drawing voltage and current wave forms for a purely inductive circuit.
9. Explain the principle of operation of a power transformer by
    a. defining mutual inductance;
    b. determining transformer ratios;
    c. identifying transformer windings.

10. Demonstrate an understanding of the effect of capacitance in an AC circuit by
    a. defining capacitance;
    b. defining capacitive reactance;
    c. drawing voltage and current wave forms for a purely inductive circuit.

11. Connect AC circuits by
    a. connecting series circuits;
    b. connecting parallel circuits;
    c. connecting transformer circuits.

12. Demonstrate an understanding of AC circuits by
    a. using Ohm's law to determine resistance, amperage, and voltage values;
    b. using Kirchoff's current law to determine node currents;
    c. using the power formula to calculate circuit wattages;
    d. calculating apparent and true power;
    e. calculating the power factor of an AC reactive circuit.

ELPT 1315 - Electrical Calculations I

General

Course Key
14702

Course Rubric	Course Number	Course Title
ELPT	1315	Electrical Calculations I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize a calculator to perform operations involving fractions and decimals; compute percentages utilizing ratio and proportions; convert unit values; solve simple equations; and calculate areas and volumes of geometric solids.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of how basic arithmetic operations are used in the technical fields by
    a. demonstrating the ability to add, subtract, multiply, and divide integers;
    b. solving technical applications and problems involving integers.

2. Demonstrate an understanding of basic geometric operations by
    a. calculating geometric perimeter, area (not circles), and volume;
    b. identifying types of angles and triangles;
    c. solving technical application problems involving geometric concepts.

3. Demonstrate an understanding of mathematic operations using fractions by
    a. converting improper fractions to mixed numbers;
    b. converting mixed numbers into improper fractions;
    c. reducing or simplifying fractions;
    d. demonstrating the ability to add, subtract, multiply, and divide signed fractions;
    e. simplifying complex fractions;
    f. solving algebraic equations involving fractions;
    g. solving application problems involving fractions.

4. Demonstrate an understanding of mathematical operations using decimals by
    a. demonstrating the ability to add, subtract, and multiply signed decimals;
    b. rounding decimals and whole numbers;
    c. dividing decimals;
    d. solving decimal applications involving technical problems;
    e. converting fractions to decimals;
    f. converting decimals to fractions;
    g. ordering and comparing fractions to decimals.

5. Demonstrate an understanding of ratios and proportions by
    a. stating ratios in reduced fractional form;
    b. solving proportions and proportion applications;
    c. solving technical application problems involving ratios and proportions, including converting numbers to different units of measurement;
    d. converting English units to metric units and metric units to English units.

6. Demonstrate an understanding of percentages by
    a. converting percent to decimal;
    b. converting decimal to percent;
    c. converting percent to fraction;
    d. converting fraction to percent;
    e. solving technical application problems involving percent.

7. Demonstrate an understanding of AC circuits by
    a. using Ohm's law to determine resistance, amperage, and voltage values;

b. using Kirchoff's current law to determine node currents;

c. using the power formula to calculate circuit wattages;

d. calculating apparent and true power;

e. calculating the power factor of an AC reactive circuit.

8. Demonstrate an understanding of DC circuits by

a. using Ohm's law to calculate resistance, amperage, and voltage values;

b. using the power formula to calculate circuit wattages.

ELPT 1321 - Introduction to Electrical Safety/Tools

General

Course Key
14703

Course Rubric	Course Number	Course Title
ELPT	1321	Introduction to Electrical Safety and Tools

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain electrical hazards and how to avoid them in the workplace; discuss safety issues concerning lockout/tagout procedures; and demonstrate safe work habits using common hand and power tools for electricians.

1. Demonstrate an understanding of the application and usage of Electrical Safety Standards in the workplace and on jobsites by

a. describing line voltage and low voltage circuits (1a, 1b, 2d, 2d);

b. explaining the proper usage of electrical hazard labeling (2a, 2c, 2d, 2d);

c. describing the purpose of ARC Fault Certification Training (2d, 2e).

2. List types of electrical hazards to personnel, including

a. describing electrical shocks, arcs and blasts (1a, 2d, 2e);

b. describing fault current and potential difference (2b, 2c, 2d);

c. describing the characteristics of an arc flash hazard (2b, 2c, 2d);

d. describing the characteristics of an arc blast hazard (2b, 2c, 2d);

e. explaining how other injury hazards are related to shock, flash, and blast (2b, 2c, 2d).

3. Demonstrate the purpose and usage of PPE in the workplace by

a. listing types of PPE for electrical hazards (1a, 1b, 2a, 2b, 2c, 2d);

b. listing the hazard types which PPE will protect against (1a, 1b, 2a, 2c, 2d);

c. describing how each type of PPE protects against hazards and identifying the limitations of PPE (1b, 2a, 2c, 2e);

d. explaining the need for flame resistant (FR) clothing and layering of clothing for protection and listing clothing prohibited where electrical hazards are present (1b, 2a, 2c, 2e);

e. selecting PPE for a given Hazard Risk Category including gloves, eye, head, face protection and (FR) clothing (1b, 2a, 2c, 2e).

4. Demonstrate correct tool selection and safe usage by

a. describing correct tool application (1a, 1b, 2a, 2c, 2e);

b. describing safe tool usage (1a, 1b, 2a, 2c);

c. describing PPE as required based on tool selection (1a, 1b, 2a, 2c);

d. performing group activities in the laboratory with hand tools (1a, 1b, 1c, 2b).

5. Demonstrate lock out/tag out (LOTO) procedures by

a. describing when LOTO is a safety requirement (1b, 2b, 2c);

b. describing the potential effects of failure to employ LOTO procedures (1b, 2b, 2c);

c. performing LOTO procedures in the laboratory (1b, 1c, 2b, 2c, 2d).

ELPT 1345 - Commercial Wiring

General

Course Key
14704

Course Rubric	Course Number	Course Title
ELPT	1345	Commercial Wiring

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Interpret electrical blueprints/drawings; compute the circuit sizes and overcurrent protection needed for the installation of branch circuits, feeders, and service entrance conductors; explain the proper installation of wiring devices according to the National Electrical Code (NEC) and local electrical codes; demonstrate grounding methods; identify commercial wiring methods including conduit bending; and demonstrate proper safety procedures.

1. Demonstrate a knowledge of electrical fundamentals by

a. describing basic electrical circuit units of measure (1a, 1b, 2c, 2d);

b. describing basic circuits (1a, 1b, 2c, 2d);

c. describing alternating current and its applications (1a, 1b, 2c, 2d);

d. describing proper utilization of voltages (1a, 1b, 2c, 2d).

2. Demonstrate safe work practices by

a. listing the cause of accidents (1b, 1c, 2a, 2b, 2d);

b. listing accident prevention measures as related to the workplace (1b, 1c, 2a, 2b, 2d);

c. describing the steps for first aid preparation (1b, 1c, 2b, 2d).

3. Demonstrate safe work practices and the appropriate selection of tools for a task by

a. listing all standard construction tools (1b, 2a, 2b, 2d);

b. identifying electrical industry-specific tools (1b, 2a, 2b, 2d).

4. Demonstrate electrical construction plan reading by

a. describing electrical construction plan reading (1a, 1b, 2c, 2d);

b. listing electrical specifications and notations (1a, 1b, 2c, 2d);

c. identifying building codes related to construction projects (1a, 1b, 2c, 2d).

5. Demonstrate wiring methods by

a. listing general rules and requirements (1a, 1b, 2a, 2c, 2d);

b. demonstrating wiring methods in laboratory-based activities (1a, 1b, 2a, 2c).

6. Identify conductors used in the electrical industry by

a. categorizing conductors by usage (1a, 1b, 2c, 2d);

b. identifying code requirements for conductors (1a, 1b, 2c, 2d);

c. listing allowable ampacities in conductors (1a, 1b, 2c, 2d);

d. defining voltage drop (1a, 1b, 2c);

e. explaining conduit capacity (1a, 1b, 2c, 2d).

7. Compare boxes and conduit bodies by

a. identifying enclosures (1b, 2a, 2b, 2d);

b. explaining enclosure sizing (1b, 2a, 2b, 2d);

c. identifying outlet and device (1a, 1b, 2c, 2d).

8. Classify overcurrent protection by

a. defining overcurrent (1a, 1b, 2c);

b. listing overcurrent protection requirements (1a, 1b, 2c, 2d);

c. describing overcurrent protective devices (1a, 1b, 2c, 2d);

d. defining conductor taps (1a, 1b, 2c).

9. Describe service and distribution systems by

a. listing the various service entrances (1a, 1b, 2c, 2d);

b. listing distribution systems (1a, 1b, 2c, 2d).

10. Explain grounding by
    a. listing grounding theory (1a, 1b, 2c, 2d);
    b. defining system grounding (1a, 1b, 2c);
    c. defining equipment grounding (1a, 1b, 2c);
    d. defining grounding electrode system (1a, 1b, 2c);
    e. identifying grounding methods (1a, 1b, 2c, 2d).

11. Identify branch circuits and feeder circuits by
    a. listing definitions (1a, 1b, 2c, 2d);
    b. drawing branch circuits (1a, 1b, 2c, 2d);
    c. explaining branch circuit loads (1a, 1b, 2c, 2d);
    d. drawing feeders (1a, 1b, 2c, 2d);
    e. summarizing the commercial service load computational procedure (1a, 1b, 2c, 2d).

ELPT 1371 - Introduction to Electrical Controls

General

Course Key
14705

Course Rubric
ELPT

Course Number
1371

Course Title
Introduction to Electrical Controls

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Technical Local Need

Description
(3-2-3) General principles of electrical controls and their components in the electrical power industry. Includes reading electrical diagrams and identifying industrial switches and pilot devices. Introduction to hardwiring and troubleshooting of industrial control relays and timers. Commercial lighting system installation, wiring, and their integration to specialized control systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify terms and devices used in electrical circuits and controls; read and interpret schematic diagrams using industrial switches, pilot devices, control relays, and timers; setup and hardwire circuits using control relays and timers; and analyze characteristics and differentiate between on and off delay timers. Understanding of the integration of lighting control systems, energy management systems, and their control devices.

1. Demonstrate a knowledge of electrical fundamentals by
    a. describing basic electrical circuit units of measure (1a, 1b, 2c, 2d);
    b. describing basic circuits (1a, 1b, 2c, 2d);
    c. describing alternating current and its applications (1a, 1b, 2c, 2d);
    d. describing proper utilization of voltages (1a, 1b, 2c, 2d).

2. Demonstrate safe work practices by
    a. listing the cause of accidents (1b, 1c, 2a, 2b, 2d);
    b. listing accident prevention measures as related to the workplace (1b, 1c, 2a, 2b, 2d);
    c. describing the steps for first aid preparation (1b, 1c, 2b, 2d).

3. Demonstrate safe work practices and the appropriate selection of tools for a task by
    a. listing all standard construction tools (1b, 2a, 2b, 2d);
    b. identifying electrical industry-specific tools (1b, 2a, 2b, 2d).

4. Demonstrate electrical construction plan reading by
    a. describing electrical construction plan reading (1a, 1b, 2c, 2d);
    b. listing electrical specifications and notations (1a, 1b, 2c, 2d);
    c. identifying building codes related to construction projects (1a, 1b, 2c, 2d).

5. Demonstrate wiring methods by
    a. listing general rules and requirements (1a, 1b, 2a, 2c, 2d);
    b. demonstrating wiring methods in laboratory-based activities (1a, 1b, 2a, 2c).

6. Identify conductors used in the electrical industry by
    a. categorizing conductors by usage (1a, 1b, 2c, 2d);
    b. identifying code requirements for conductors (1a, 1b, 2c, 2d);
    c. listing allowable ampacities in conductors (1a, 1b, 2c, 2d);
    d. defining voltage drop (1a, 1b, 2c);
    e. explaining conduit capacity (1a, 1b, 2c, 2d).

7. Identify lighting fixtures by
    a. identifying illumination mechanisms (1a, 1b, 2c, 2d);
    b. listing operating voltages (1a, 1b, 2c, 2d);
    c. defining lighting control methodology (1a, 1b, 2c).

8. Identify occupancy-based control systems by
    a. explaining control system interfaces (1a, 1b, 2c, 2d);
    b. describing motion detection (1a, 1b, 2c, 2d).

9. Explain grounding by
    a. listing grounding theory (1a, 1b, 2c, 2d);
    b. defining equipment grounding (1a, 1b, 2c);

c. identifying grounding methods (1a, 1b, 2c, 2d).

ELPT 2380 - Coop Electrical/Power Trans Install Gen

General

Course Key
14706

Course Rubric
ELPT

Course Number
2380

Course Title
Cooperative Education-Electrical and Power Transmission Installation/Installer, General

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
19

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-19) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Required Prerequisite(s): ELPT-1311, ELPT-1315, ELPT-1321, ELPT-1345, and ELPT-1371.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take ELPT-1311 ELPT-1315 ELPT-1321 ELPT-1345 ELPT-1371;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ELPT 1311, ELPT 1315, ELPT 1321, ELPT 1345, and ELPT 1371

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

1. Complete a semester long project by applying the learned skills on a jobsite while assigned with a Journeyman Electrician working under a Master Electrician's guidance by
    a. preparing for each day's work activities and experiences, including interaction with job site personnel as well as clients (1a, 1b);
    b. demonstrating how skills and knowledge learned in the classroom relate to the work environment (1a, 1b, 1c);
    c. preparing a narrative report outlining experiences on the job (1a, 1b, 1c).
2. Demonstrate an understanding of the basic processes in the electrical industry by
    a. understanding the various electrical installation processes (1a, 1b);
    b. using various tools and equipment available on the jobsite (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate an understanding of the importance of industry immersion for students by
    a. identifying the various industry certification levels and associated skills for that level (1a, 1b);
    b. identifying the various opportunities in the electrical industry (1a, 1b).
4. Present a final report of the experience by
    a. discussing the knowledge and skills gained through the experience (1a, 1b);
    b. demonstrating skill through oral and written presentation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

ELPT 2455 - Programmable Logic Controllers II

General

Course Key
15119

Course Rubric
ELPT

Course Number
2455

Course Title
Programmable Logic Controllers II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Advanced concepts in programmable logic controllers and their applications and interfacing to industrial controls. Required Prerequisite: RBTC-1401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RBTC-1401
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RBTC 1401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Convert ladder diagrams into programs; explain digital/analog devices used with programmable logic controllers; apply advanced programming techniques; execute and evaluate control system operation; and implement interfacing and networking schemes.

1. Demonstrate a thorough understanding of safety in the work environment by
    a. defining an accident (1a, 2c);
    b. explaining why accidents happen (1a, 1b, 1c);
    c. describing how accidents can be prevented (1a, 1b, 1c, 2a, 2c);
    d. describing lockout/tagout procedures and how they are used in industry (1a, 1b, 1c, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of PLCs by
    a. defining terminology including ladder logic, CPU, and input/output devices (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining why PLCs are replacing hardwired logic in automation (1a, 1b, 2a, 2c, 2d, 2e);
    c. blocking diagrams of multiple PLCs (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of Rockwell automation by
    a. explaining Rockwell automation memory organization (1a, 1b, 2a, 2c, 2d, 2e);
    b. defining addresses for various file types (1a, 1b, 2a, 2c, 2d, 2e);
    c. writing programs that utilize Rockwell automation instructions (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate an understanding of advanced concepts by
    a. moving instructions for data manipulation (1a, 1b, 2a, 2c, 2d, 2e);
    b. copying instructions for data manipulation (1a, 1b, 2a, 2c, 2d, 2e);
    c. interpreting special purpose instructions such as PID and ramp (1a, 1b, 2a, 2c, 2d, 2e);
    d. writing ladder logic programs using sequencers to control multiple outputs (1a, 1b, 2a, 2c, 2d, 2e);
    e. explaining the benefits and use of stage programming, fuzzy logic, and state logic programming (1a, 1b, 1c, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of the use of industrial sensors by
    a. choosing the appropriate sensor for a given application (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing the use of digital and analog sensors (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining the wiring of load and line powered sensors (1a, 1b, 2a, 2c, 2d, 2e);
    d. explaining the principles of thermocouples (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating the principles of thermocouples (1a, 1b, 2a, 2c, 2d, 2e).
6. Demonstrate an understanding of IEC 61131-3 standard by
    a. explaining the purpose of the standard (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining each of the languages specified in this standard (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining the use of function blocks, functions, and statements referred to by this standard (1a, 1b, 2a, 2c, 2d, 2e).

7. Demonstrate an understanding of SCADA by
    a. describing a typical SCADA application (1a, 1b, 2a, 2c, 2d, 2e);
    b. defining the terms: driver, topic, item, recipe, and historical log (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining how SCADA software can be used to improve the performance of an enterprise (1a, 1b, 2a, 2c, 2d, 2e).
8. Demonstrate an understanding of communications within a manufacturing plant by
    a. defining terms such as serial, synchronous, RS-232, RS-422, device, cell, area, and host (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining how computers communicate with PLCs (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing some of the industrial networks and their functions (1a, 1b, 2a, 2c, 2d, 2e);
    d. describing the purpose and capabilities of ControlLogix (1a, 1b, 2a, 2c, 2d, 2e);
    e. describing the purpose and capabilities of DeviceNet (1a, 1b, 2a, 2c, 2d, 2e).
9. Demonstrate an understanding of PC based control of automation by
    a. describing the types of applications that necessitate this type of control in industry (1a, 1b, 2a, 2c, 2d, 2e);
    b. contrasting this type of control with PLC control of automation (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing flowchart programming and its advantages (1a, 1b, 2a, 2c, 2d, 2e);
    d. listing some alternative approaches to PC based control of automation (1a, 1b, 2a, 2c, 2d, 2e).
10. Demonstrate an understanding of the fundamentals of process control by
    a. defining these terms: open loop, closed loop, feedback, summing junction, command error, disturbances, and damping (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing the principles of proportional, integral, and derivative (PID) control (1a, 1b, 2a, 2c, 2d, 2e);
    c. tuning a PID system (1a, 1b, 2a, 2c, 2d, 2e);
    d. describing the common methods of measurement and control of flow, level, density, and temperature measurement systems (1a, 1b, 2a, 2c, 2d, 2e);
    e. describing the types of signals used in process measurement (1a, 1b, 2a, 2c, 2d, 2e).
11. Demonstrate an understanding of batch and continuous processes by
    a. defining these terms: batch, continuous, separation, and distillation (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing a reactor (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining the process of fractional distillation (1a, 1b, 2a, 2c, 2d, 2e).

EMSP 1160 - Clinical-Emergency Medical Technology

General

Course Key
14378

Course Rubric	Course Number	Course Title
EMSP	1160	Clinical-Emergency Medical Technology

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	5

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-5) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Required Prerequisite: TSI Met in Reading and Writing. TSI Met in Algebraic Math pathway Required Corequisite: EMSP-1501

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Must be TSI Met in Algebraic Math pathway
Type
Math Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take EMSP-1501
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Reading
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) OR INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Writing
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;

A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): TSI-Met in Reading and Writing TSI-Met in Algebraic Math pathway
Required Corequisite(s): EMSP 1501

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the United States Department of Transportation National Highway Traffic and Safety Administration Office of Emergency Medical Service's educational guidelines and the National Standard Curriculum for the EMT-Basic, the Texas Department of State Health Services Division of Emergency Medical Service and Trauma Systems regulations and guidelines for Emergency Medical Service education, and the National Registry of EMTs requirements for certification testing.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Participate in clinical experiences applicable to patient care at the EMT-Basic level by
    a. observing care of patients in the hospital emergency room setting (1a, 1b, 1c, 2a, 2b, 2e);
    b. observing care of patients in the pre-hospital environment (1a, 1b, 1c, 2a, 2b, 2e);
    c. participating in patient care (if permitted) by onsite clinical preceptors (1a, 1b, 1c, 2a, 2b, 2e).

EMSP 1355 - Trauma Management

General

Course Key
440

Course Rubric
EMSP

Course Number
1355

Course Title
Trauma Management

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Knowledge and skills in the assessment and management of patients with traumatic injuries. Recommended Prerequisites: EMSP-1356 and EMSP-1438 Required Corequisite: EMSP-2161

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required concurrent course.

10
A Requirement block where all subrequirements are required

Take EMSP-2161
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take emsp-1356 emsp-1438;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): EMSP 1356 and EMSP 1438
Required Corequisite(s): EMSP 2161

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Integrate the pathophysiological assessment findings to formulate a field impression; implement the treatment plan for the trauma patient; and integrate multiple determinants of trauma conditions into clinical care.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the management of the injured patient in the prehospital environment by
    a. discussing trauma systems (1a, 1b, 2a);
    b. discussing kinematics of trauma (1a, 1b, 2a);
    c. describing the pathophysiology of injuries to the head and neck (1a, 1b, 2a);
    d. describing the pathophysiology of injuries to the chest (1a, 1b, 2a);
    e. describing the pathophysiology of injuries to the abdomen and pelvis (1a, 1b, 2a);
    f. describing the pathophysiology of injuries to the spine (1a, 1b, 2a);
    g. describing the pathophysiology of injuries to the musculoskeletal system (1a, 1b, 2a);
    h. describing the pathophysiology of injuries to the soft tissues, including burns (1a, 1b, 2a);
    i. demonstrating the assessment and management of injuries to the head and neck (1a, 1b, 2a);
    j. demonstrating the assessment and management of injuries to chest (1a, 1b, 2a);
    k. demonstrating the assessment and management of injuries to the abdomen and pelvis (1a, 1b, 2a);
    l. demonstrating the assessment and management of injuries to the spine (1a, 1b, 2a);
    m. demonstrating the assessment and management of injuries to the musculoskeletal system (1a, 1b, 2a);
    n. demonstrating the assessment and management of injuries to the soft tissues, including burns (1a, 1b, 2a).

EMSP 1356 - Patient Assessment and Airway Management

General

Course Key
14379

Course Rubric
EMSP

Course Number
1356

Course Title
Patient Assessment and Airway Management

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Knowledge and skills required to perform patient assessment, airway management, and artificial ventilation. Required Prerequisite: TSI Met in Reading and Writing. TSI Met in Algebraic Math pathway. Texas EMT certification Required Corequisite: EMSP-2160

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Must be TSI met in Reading
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take EMSP-2160
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Must be TSI Met in Algebraic Math pathway
Type
Math Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Writing
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): TSI-Met in Reading and Writing TSI-Met in Algebraic Math pathway Texas EMT certification
Required Corequisite(s): EMSP 2160

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Perform a history and comprehensive physical exam on various patient populations; establish and/or maintain a patient airway; and demonstrate oxygenation and ventilation of a patient; differentiate respiratory distress, failure, and arrest; and interpret results of monitoring devices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of airway management as it relates to Emergency Medical Services and paramedicine by
    a. describing the anatomy and physiology of the human airway and respiratory system (1a, 1b, 2c);
    b. demonstrating basic airway management (1a, 1b, 2c);
    c. demonstrating the use of basic airway adjuncts (1a, 1b, 2c);
    d. demonstrating advanced airway management (1a, 1b, 2c).
2. Demonstrate understanding of patient assessment associated with Emergency Medical Services and paramedicine by
    a. describing the patient assessment process (1a, 1b, 2c);
    b. discussing critical clinical decision making (1a, 1b, 2c);
    c. discussing the general survey of anatomic regions (1a, 1b, 2c);
    d. demonstrating patient related communication (1a, 1b, 2c);
    e. demonstrating documentation of patient care (1a, 1b, 2c).

EMSP 1438 - Introduction to Advanced Practice

General

Course Key
14380

Course Rubric
EMSP

Course Number
1438

Course Title
Introduction to Advanced Practice

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Fundamental elements associated with emergency medical services to include preparatory practices, pathophysiology, medication administration, and related topics. Required Prerequisite: TSI Met in Reading and Writing. TSI Met in Algebraic Math pathway. Required Corequisite: EMSP-2160

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Math Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take EMSP-2160
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Reading
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Writing
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): TSI-Met in Reading and Writing TSI-Met in Algebraic Math pathway
Required Corequisite(s): EMSP 2160

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Describe the roles and responsibilities of advanced EMS personnel within the EMS system; apply concepts of pathophysiology and pharmacology to the assessment and management of emergency patients; administer medications; employ effective communication; interpret medical/legal issues; demonstrate ethical behaviors; and discuss well-being of the paramedic.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the profession of Emergency Medical Services and paramedicine by
    a. discussing the development of EMS Systems (1a, 1b, 2c);
    b. describing the roles and responsibilities of the paramedic (1a, 1b, 2c);
    c. discussing wellness and illness/injury prevention as it relates to Emergency Medical Services (1a, 1b, 2c);
    d. describing medical legal and ethical boundaries and responsibilities as they relate to Emergency Medical Services (1a, 1b, 2c).
2. Demonstrate foundational understanding of pathophysiology as it relates to Emergency Medical Services and paramedicine by
    a. describing cellular function and the cellular environment (1a, 1b, 2c);
    b. describing acid/base balance (1a, 1b, 2c);
    c. discussing genetic and familial diseases (1a, 1b, 2a);
    d. discussing hypoperfusion (1a, 1b, 2c);
    e. discussing and contrasting the inflammatory response and the immune response (1a, 1b, 2c);
    f. discussing stress and the stress response (1a, 1b, 2c).
3. Demonstrate foundational understanding of pharmacology and medication administration as it relates to Emergency Medical Services and paramedicine by
    a. describing pharmacotherapeutics (1a, 1b, 2c);
    b. discussing pharmacokinetics (1a, 1b, 2c);
    c. discussing pharmacodynamics (1a, 1b, 2a);
    d. discussing medications used in the pre-hospital setting (1a, 1b, 2c).
4. Demonstrate foundational understanding of socio-cultural aspects of human encounters as it relates to Emergency Medical Services and paramedicine by
    a. describing therapeutic communications (1a, 1b, 2c);
    b. discussing lifespan development (1a, 1b, 2c).

EMSP 1501 - Emergency Medical Technician

General

Course Key
14381

Course Rubric
EMSP

Course Number
1501

Course Title
Emergency Medical Technician

Semester Credit Hours
5

Lecture Hours
3

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-3-6) Preparation for certification as an Emergency Medical Technician (EMT). Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services. Required Prerequisite: TSI Met in Reading and Writing. TSI Met in Algebraic Math pathway Required Corequisite: EMSP-1160

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Must be TSI Met in Algebraic Math pathway
Type
Math Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take EMSP-1160
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Reading
Type
Reading Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-PASS; # Take INRW-0399(9631) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Must be TSI met in Writing
Type
Writing Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take WRIT-PASS; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): TSI-Met in Reading and Writing TSI-Met in Algebraic Math pathway
Required Corequisite(s): EMSP 1160

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the US DOT - NHTSA Office of Emergency Medical Service's educational guidelines and the National Standard Curriculum for the EMT-Basic, the Texas Department of State Health Services Division of Emergency Medical Service and Trauma Systems regulations and guidelines for Emergency Medical Service education, and the National Registry of EMT requirements for certification testing.

End-of-Course Outcomes: Demonstrate proficiency in cognitive, psychomotor, and affective domains for the Emergency Medical Technician (EMT) in accordance with the current guidelines of the credentialing agency.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of medical knowledge applicable to patient care at the EMT-Basic level by
    a. defining assigned terminology (1a, 1b, 2b, 2c);
    b. comprehending signs and symptoms of trauma and disease (1a, 1b, 2b, 2c);
    c. employing appropriate treatment for identified medical conditions (1a, 1b, 2b, 2c).
2. Apply EMT-Basic level required and assigned skills by
    a. identifying patient care skills appropriate for specific scenarios (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. performing patient care skills (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. organizing a patient care plan based on patient assessment findings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

EMSP 2160 - Clinical - EMT Paramedic

General

Course Key
9544

Course Rubric	Course Number	Course Title
EMSP	2160	Clinical - Emergency Medical Technology/ Technician (EMT Paramedic)

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	5

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-5) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. (Clinical experiences are unpaid external learning experiences.) Recommended Pre/ Corequisites: EMSP-1356 and EMSP-1438

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

take emsp-1356 emsp-1438;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): EMSP 1356 and EMSP 1438

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

Upon successful completion of this course, students will:

1. Participate in clinical experiences applicable to patient care at the Paramedic Level by
    a. watching the care of patients in the hospital setting and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    b. contributing to the care of patients in the hospital and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    c. performing patient assessment and management under the direction of an on-site clinical preceptor (1a, 1b, 1c, 2a, 2b, 2e).

EMSP 2161 - Clinical - EMT Paramedic

General

Course Key
12197

Course Rubric	Course Number	Course Title
EMSP	2161	Clinical - Emergency Medical Technology/ Technician (EMT Paramedic)

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	5

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-5) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical experiences are unpaid external learning experiences. Recommended Pre/ Corequisites: EMSP-1355 and EMSP-2444

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

#Take EMSP-1355 EMSP-2444;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): EMSP 1355 and EMSP 2444

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

Upon successful completion of this course, students will:

1. Participate in clinical experiences applicable to patient care at the Paramedic Level by
    a. watching the care of patients in the hospital setting and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    b. contributing to the care of patients in the hospital and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    c. performing patient assessment and management under the direction of an on-site clinical preceptor (1a, 1b, 1c, 2a, 2b, 2e).

EMSP 2162 - Clinical - EMT Paramedic

General

Course Key
12199

Course Rubric
EMSP

Course Number
2162

Course Title
Clinical - Emergency Medical Technology/ Technician (EMT Paramedic)

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-6) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical experiences are unpaid external learning experiences. Recommended Pre/ Corequisites: EMSP-2430 and EMSP-2305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

#Take EMSP-2430 EMSP-2305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): EMSP 2430 and EMSP 2305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

Upon successful completion of this course, students will:

1. Participate in clinical experiences applicable to patient care at the Paramedic Level by
    a. watching the care of patients in the hospital setting and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    b. contributing to the care of patients in the hospital and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    c. performing patient assessment and management under the direction of an on-site clinical preceptor (1a, 1b, 1c, 2a, 2b, 2e).

EMSP 2243 - Assessment Based Management

General

Course Key
490

Course Rubric
EMSP

Course Number
2243

Course Title
Assessment Based Management

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-4) A summative experience covering comprehensive, assessment-based patient care management for the paramedic level. Includes specific care when dealing with pediatric, adult, geriatric, and special-needs patients. Recommended Corequisite: EMSP-2267

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for co-requisite.
Type
Recommended concurrent course.

10
A Requirement block where all subrequirements are required

Take EMSP-2267
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Corequisite(s): EMSP 2267

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Integrate pathophysiological principles and assessment findings to formulate a field impression; and implement a treatment plan at the paramedic level.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply the principles of Emergency Medical Services and paramedicine by
    a. evaluating the emergency patient (1a, 1b, 2c);
    b. designing a patient care plan based on the assessment of the emergency patient (1a, 1b, 2c);
    c. contrasting forms of management of the emergency patient (1a, 1b, 2c).

EMSP 2267 - Practicum - EMT Paramedic

General

Course Key
12200

Course Rubric
EMSP

Course Number
2267

Course Title
Practicum - EMT Paramedic

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
18

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-18) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. This may be paid or unpaid experience. Recommended Prerequisite/Co-requisite: EMSP-2243

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descirption for prerequisite/corequisite.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

#Take EMSP-2243;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): EMSP 2243

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

Upon successful completion of this course, students will:

1. Participate in clinical experiences applicable to patient care at the Paramedic Level by
    a. watching the care of patients in the hospital setting and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    b. contributing to the care of patients in the hospital and pre-hospital settings (1a, 1b, 1c, 2a, 2b, 2e);
    c. performing patient assessment and management under the direction of an on-site clinical preceptor (1a, 1b, 1c, 2a, 2b, 2e).

EMSP 2305 - EMS Operations

General

Course Key
11011

Course Rubric
EMSP

Course Number
2305

Course Title
EMS Operations

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Knowledge and skills to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents. Required Corequisite: EMSP-2162

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptin for corequisite course.
Type
Required concurrent course.

10
A Requirement block where all subrequirements are required

Take EMSP-2162
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): EMSP 2162

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Identify principles of EMS Operations; and describe management of routine and specialized incidents.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of operations carried out in Emergency Medical Services and paramedicine by
    a. describing ambulance operations (1a, 1b, 2c);
    b. discussing Medical Incident Command (1a, 1b, 2c);
    c. demonstrating triage (1a, 1b, 2c);
    d. discussing rescue awareness (1a, 1b, 2c);
    e. discussing hazardous materials incidents (1a, 1b, 2c);
    f. discussing crime scene operations (1a, 1b, 2c);
    g. discussing considerations for patient care in rural and wilderness settings (1a, 1b, 2c).

EMSP 2430 - Special Populations

General

Course Key
502

Course Rubric
EMSP

Course Number
2430

Course Title
Special Populations

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Knowledge and skills necessary to assess and manage ill or injured patients in diverse populations to include neonatology, pediatrics, geriatrics, and other related topics. Required Prerequisite: EMSP-2534 Required Corequisite: EMSP-2162

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take EMSP-2534;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Recommended concurrent course.

10
A Requirement block where all subrequirements are required

Take EMSP-2162
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): EMSP 2534
Required Corequisite(s): EMSP 2162

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Integrate pathophysiological assessment findings to formulate a field impression; implement a treatment plan for diverse patients of special populations; and integrate multiple determinants of such conditions into clinical care.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of pediatric care and management as it relates to Emergency Medical Services and paramedicine by
    a. discussing the assessment and management of the neonate (1a, 1b, 2c);
    b. discussing the pathophysiology of conditions encountered in the neonate (1a, 1b, 2c);
    c. discussing the epidemiology and growth and development of pediatric patients (1a, 1b, 2c);
    d. discussing the general assessment and management of pediatric patients (1a, 1b, 2c);
    e. discussing the pathophysiology, assessment, and management of conditions encountered in pediatric patients (1a, 1b, 2c).
2. Demonstrate understanding of geriatric care and management as it relates to Emergency Medical Services and paramedicine by
    a. discussing the epidemiology and physiology of geriatric patients (1a, 1b, 2c);
    b. discussing the general assessment and management of geriatric patients (1a, 1b, 2c);
    c. discussing the pathophysiology, assessment, and management of conditions encountered in geriatric patients (1a, 1b, 2c).
3. Demonstrate understanding of the care and management of patients with special challenges as it relates to Emergency Medical Services and paramedicine by
    a. discussing abuse and assault (1a, 1b, 2c);
    b. discussing the challenged patient (1a, 1b, 2c);
    c. discussing acute interventions for the chronic care patient (1a, 1b, 2c).

EMSP 2444 - Cardiology

General

Course Key
503

Course Rubric
EMSP

Course Number
2444

Course Title
Cardiology

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation. Required Prerequisites: EMSP-1438, EMSP-1356, and EMSP-2160 Required Corequisite: EMSP-2161

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take EMSP-1438 EMSP-1356 EMSP-2160;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Required concurrent course.

10
A Requirement block where all subrequirements are required

Take EMSP-2161
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): EMSP 1438, EMSP 1356, and EMSP 2160
Required Corequisite(s): EMSP 2161

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Integrate pathophysiological principles and assessment findings to formulate an impression; and implement a treatment plan for the cardiac patient.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of cardiology and cardiovascular care as it relates to Emergency Medical Services and paramedicine by
    a. describing the anatomy and physiology of the human cardiovascular system (1a, 1b, 2c);
    b. interpreting the ECG rhythm (1a, 1b, 2c);
    c. interpreting the 12 lead ECG tracing (1a, 1b, 2c);
    d. discussing the pathophysiology, assessment, and management of cardiovascular conditions encountered in the pre-hospital environment (1a, 1b, 2c);
    e. demonstrating the management of a patient experiencing cardiac arrest (1a, 1b, 2c).

EMSP 2534 - Medical Emergencies

General

Course Key
508

Course Rubric
EMSP

Course Number
2534

Course Title
Medical Emergencies

Semester Credit Hours
5

Lecture Hours
4

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-4-2) Knowledge and skills in the assessment and management of patients with medical emergencies, including medical overview, neurology, gastroenterology, immunology, pulmonology, urology, hematology, endocrinology, toxicology, and other related topics. Required Prerequisites: EMSP-2444, EMSP-1355 and EMSP-2161

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take EMSP-2444 EMSP-1355 EMSP-2161;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): EMSP 2444, EMSP 1355 and EMSP 2161

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the Education Standards set forth by the US DOT - NHTSA, as adopted by the Texas Department of State Health Services.

End-of-Course Outcomes: Integrate pathophysiological assessment findings to formulate a field impression. Implement a treatment plan for the medical patient, and integrate multiple determinants of medical conditions into clinical care.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the care of patients experiencing a medical emergency as it relates to Emergency Medical Services and paramedicine by
    a. describing the anatomy and physiology of the human airway and respiratory system (1a, 1b, 2c);
    b. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with pulmonology in the pre-hospital setting (1a, 1b, 2c);
    c. describing the anatomy and physiology of the central and peripheral nervous systems (1a, 1b, 2c);
    d. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with neurology in the pre-hospital setting (1a, 1b, 2c);
    e. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with allergies and anaphylaxis in the pre-hospital setting (1a, 1b, 2c);
    f. describing the anatomy and physiology of the endocrine system (1a, 1b, 2c);
    g. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with endocrinology in the pre-hospital setting (1a, 1b, 2c);
    h. describing the anatomy and physiology of the human gastrointestinal system (1a, 1b, 2c);
    i. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with gastroenterology in the prehospital setting (1a, 1b, 2c);
    j. describing the anatomy and physiology of the human genitourinary system (1a, 1b, 2c);
    k. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with urology in the pre-hospital setting (1a, 1b, 2c);
    l. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with toxicology in the pre-hospital setting (1a, 1b, 2c);
    m. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with environmental emergencies in the pre-hospital setting (1a, 1b, 2c);
    n. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with infectious diseases in the prehospital setting (1a, 1b, 2c);
    o. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with psychology and behavioral problems in the pre-hospital setting (1a, 1b, 2c);
    p. describing the anatomy and physiology of the female reproductive system (1a, 1b, 2c);
    q. discussing the pathophysiology, assessment, and management of patients experiencing problems associated with gynecology and obstetrics in the pre-hospital setting (1a, 1b, 2c).

ENGL 1301 - Composition I

General

Course Key
16260

Course Rubric
ENGL

Course Number
1301

Course Title
Corequisite Composition I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Required Co-Requisite: INRW-0399 or INRW-0114

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

A Co-Requisite of either INRW-0114 or INRW-0399 will be required with this course.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

Take INRW-0399 or INRW-0114;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take RDNG-0090 ENGL-0090 or INRW-0090; Minimum grade CR; # Take ENGL-0324(8825) RDNG-0361; Minimum grade C; # Take ESOL-0309(8534) ESOL-0312(8538); Minimum grade C; # Take INRW-0395; Minimum grade C; # Take READ-DEV1 WRIT-DEV1; # Take READ-DEV1 WRIT-DEV2; # Take READ-DEV1 WRIT-PASS; # Take READ-DEV1 WRIT-OBJT; # Take READ-DEV2 WRIT-DEV1; # Take READ-PASS WRIT-DEV1; # Take READ-DEV2 WRIT-PASS; # Take WRIT-DEV2 READ-PASS; # Take INRW-NCR1 INRW-DX02 INRW-ESS2; # Take INRW-NCR1 INRW-DX02 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS1; # Take INRW-NCR1 INRW-DX03 INRW-ESS2; # Take INRW-NCR1 INRW-DX04 INRW-ESS1; # Take INRW-NCR1 INRW-DX04 INRW-ESS2; # Take INRW-CR01 INRW-ESS1; # Take INRW-CR01 INRW-ESS2;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

ENGL 1301 - Composition I Honors

General

Course Key
16366

Course Rubric
ENGL

Course Number
1301

Course Title
Composition I Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Required Prerequisite: TSI Met in Writing and reading

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites and corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) or INRW-0114; Minimum grade C; # Take READ-PASS; # Take GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

ENGL 1301 - Composition I

General

Course Key
16365

Course Rubric
ENGL

Course Number
1301

Course Title
Composition I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Required Prerequisite: TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) inrw-0114 ESLX-0309(13817) or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 ESLX-0312(13820) or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

ENGL 1302 - Composition II

General

Course Key
16367

Course Rubric
ENGL

Course Number
1302

Course Title
Composition II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Required Prerequisite: ENGL-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENG-1613(5670) ENG-1613(1072) ENGL-1301(2519) or ENGL-1301(534);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGL 2307 - Creative Writing I

General

Course Key
16368

Course Rubric
ENGL

Course Number
2307

Course Title
Creative Writing I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Practical experience in the techniques of imaginative writing. May include fiction, nonfiction, poetry, screenwriting, or drama. Includes lectures on recognition and use of literary devices. Required Prerequisite: ENGL-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGL 2311 - Technical & Business Writing Honors

General

Course Key
16369

Course Rubric
ENGL

Course Number
2311

Course Title
Technical and Business Writing Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Intensive study of and practice in professional settings. Focus on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, email messages, letters, and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents. Required Prerequisite: ENGL-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1301(534) engl-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGL 2311 - Technical and Business Writing

General

Course Key
16370

Course Rubric
ENGL

Course Number
2311

Course Title
Technical and Business Writing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Intensive study of and practice in professional settings. Focus on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, email messages, letters, and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents. Required Prerequisite: ENGL-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course coure description for pre-requisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGL 2322 - British Literature I

General

Course Key
16371

Course Rubric
ENGL

Course Number
2322

Course Title
British Literature I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1302(10589) ENGL-1302(540) or ENG-1623(1074);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGL 2323 - British Literature II

General

Course Key
16372

Course Rubric
ENGL

Course Number
2323

Course Title
British Literature II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1302(10589) ENGL-1302(540) or ENG-1623(1074);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGL 2327 - American Literature I

General

Course Key
16373

Course Rubric
ENGL

Course Number
2327

Course Title
American Literature I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1302(10589) ENGL-1302(540) or ENG-1623(1074);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGL 2328 - American Literature II

General

Course Key
16374

Course Rubric
ENGL

Course Number
2328

Course Title
American Literature II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGL 2332 - World Literature I

General

Course Key
16375

Course Rubric
ENGL

Course Number
2332

Course Title
World Literature I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1302(10589) ENGL-1302 or ENG-1623(1074);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGL 2333 - World Literature II

General

Course Key
16422

Course Rubric
ENGL

Course Number
2333

Course Title
World Literature II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of world literature from the seventeenth century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGL 2332 - World Literature I Honors

General

Course Key
16376

Course Rubric
ENGL

Course Number
2332

Course Title
World Literature I Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGL 2341 - Forms of Literature

General

Course Key
16377

Course Rubric
ENGL

Course Number
2341

Course Title
Forms of Literature

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film. Required Prerequisite: ENGL-1301 and ENGL-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE ENGL-1301 ENGL-1302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGL 2351 - Mexican-American Literature

General

Course Key
16378

Course Rubric
ENGL

Course Number
2351

Course Title
Mexican-American Literature

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). A survey of Mexican American/Chicanx literature from Mesoamerica to the present. Students will study literary works of fiction, poetry, drama, essays, and memoirs in relation to their historical, linguistic, political, regional, gendered, and cultural contexts. Texts will be selected from a diverse group of authors, literary movements, and media forms. Topics and themes may include the literary performance of identity and culture, aesthetic mediation of racialization, struggle and protest, and artistic activism. Required Prerequisite: ENGL 1301 and ENGL 1302.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

TAKE ENGL-1302 OR ENGL-1302;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGL 2389 - Academic Cooperative

General

Course Key
16379

Course Rubric
ENGL

Course Number
2389

Course Title
Academic Cooperative

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of English language and literature. Required Prerequisites: ENGL-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1301(11719);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGR 1201 - Introduction to Engineering

General

Course Key
16380

Course Rubric
ENGR

Course Number
1201

Course Title
Introduction to Engineering

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-3) An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Required Prerequisite: MATH-1314 or equivalent academic preparation

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-1314 MATH-1316 MATH-2412 or MATH-2513;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGR 1304 - Engineering Graphics I

General

Course Key
16381

Course Rubric
ENGR

Course Number
1304

Course Title
Engineering Graphics I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-4) Introduction to computer-aided drafting using CAD software and sketching to generate two- and three-dimensional drawings based on the conventions of engineering graphical communication; topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Required Prerequisite: MATH-1314 or equivalent academic preparation

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-1314(9762) MATH-1316(9763) MATH-2412(9981) or MATH-2513(9776);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGR 2301 - Engineering Mechanics - Statics

General

Course Key
16382

Course Rubric
ENGR

Course Number
2301

Course Title
Engineering Mechanics - Statics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Basic theory of engineering mechanics, using calculus, involving the description of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions; free-body diagrams; friction; centroids; centers of gravity; and moments of inertia. Required Prerequisite: PHYS-2425 Required Pre/Corequisite: MATH-2414

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take PHYS-2425(684);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite/ Corequisite

10
A Requirement block where all subrequirements are required

Take MATH-2414;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGR 2302 - Engineering Mechanics - Dynamics

General

Course Key
16383

Course Rubric
ENGR

Course Number
2302

Course Title
Engineering Mechanics -Dynamics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Basic theory of engineering mechanics, using calculus, involving the motion of particles, rigid bodies, and systems of particles; Newton's Laws; work and energy relationships; principles of impulse and momentum; application of kinetics and kinematics to the solution of engineering problems. Required Prerequisite: ENGR-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

TAKE ENGR-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGR 2305 - Electrical Circuits I

General

Course Key
16384

Course Rubric
ENGR

Course Number
2305

Course Title
Electrical Circuits I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Principles of electrical circuits and systems. Basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff's laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Required Prerequisite: PHYS-2426 and MATH-2414 Recommended Pre/Corequisite: MATH-2320 or equivalent

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take PHYS-2426 MATH-2414(9775);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite/ Corequisite

10
A Requirement block where all subrequirements are required

Take MATH-2320;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

ENGR 2308 - Engineering Economics

General

Course Key
16385

Course Rubric
ENGR

Course Number
2308

Course Title
Engineering Economics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Methods used for determining the comparative financial desirability of engineering alternatives. Provides the student with the basic tools required to analyze engineering alternatives in terms of their worth and cost, an essential element of engineering practice. The student is introduced to the concept of the time value of money and the methodology of basic engineering economy techniques. The course will address some aspects of sustainability and will provide the student with the background to enable them to pass the Engineering Economy portion of the Fundamentals of Engineering exam. Required Prerequisite: MATH-2413

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-2413 or MATH-2513(9776);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

ENGR 2332 - Mechanics of Materials

General

Course Key
16386

Course Rubric
ENGR

Course Number
2332

Course Title
Mechanics of Materials

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Stresses, deformations, stress-strain relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses. Required Prerequisite: ENGR-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for course prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE ENGR-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

EPCT 1311 - Introduction to Environmental Science

General

Course Key
204

Course Rubric
EPCT

Course Number
1311

Course Title
Introduction to Environmental Science

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An overview of environmental science and current global concerns, and a brief history of environmental ethics, resource use, and conservation. Discussion of fundamental principles of resource economics and environmental health.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the historical impact of the environmental movement; describe the environmental interrelationship between social, political, and natural processes; and describe the environmental regulatory agencies and their mission at federal, state, and local levels.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the basic principles and concepts associated with the field of environmental science and its systems, resources, and conservation by:
    a. describing major historical events that gave rise to the environmental movement;
    b. identifying public policy changes caused by the movement;
    c. listing major federal agencies involved in environmental, health, and safety regulation;
    d. describing governmental processes that give rise to environmental laws at state and federal levels;
    e. comparing responsibility and jurisdiction of federal and state agencies involved in environmental and safety issues;
    f. describing terrestrial and aquatic food chains;
    g. explaining significance of energy flow through successive trophic levels;
    h. listing factors that contribute to loss of biodiversity;
    i. describing cycles that are crucial to sustaining life;
    j. listing key global ecological concerns;
    k. describing major benefits of wetlands;
    l. explaining NEPA's purpose and implementation;
    m. listing major sources of air, water, and land pollution;
    n. describing types of environmental and health damage caused by air, water, and soil pollution;
    o. examining the impact of human activities on air, water, and soil quality;
    p. listing factors that influence land use decision making;
    q. relating how environmental compartments are interconnected;
    r. describing the primary processes that control the fate of environmental pollutants;
    s. summarizing basic provision of the Clean Air Act;
    t. describing the role of federal, state, and local agencies in implementing the Clean Air Act;
    u. explaining the bubble policy for emissions trading;
    v. comparing regulation of point versus nonpoint sources;
    w. listing examples of air emission control technologies;
    x. describing the major provisions of the Safe Drinking Water Act; the Clean Water Act; and the Marine Protection, Research, and Sanctuaries Act;
    y. describing the basic components of water supply systems;
    z. describing the basic unit processes of a water treatment system;
    aa. describing types of treatment technologies used to meet NPDES limits under the Clean Water Act;
    ab. distinguishing between hazardous materials, hazardous substances, hazardous wastes, regulated substances, and hazardous chemicals;
    ac. describing the basic provisions of RCRA, pertaining to regulation of solid waste, hazardous waste, and medical waste;
    ad. listing examples of technologies used in recovering, reducing, recycling, or reusing wastes;
    ae. discussing incentives and obstacles to waste minimization, waste reduction and recycling programs;
    af. contrasting proactive waste management strategies with older end of the pipe controls.

EPCT 1313 - Contingency Planning

General

Course Key
213

Course Rubric	Course Number	Course Title
EPCT	1313	Contingency Planning
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An introduction to the development of an emergency response contingency plan for a facility or community. Emphasis on analyzing the hazards, writing and implementing the contingency plans, and evaluating the effectiveness of the contingency plan.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and apply regulations and standards; identify and describe components of the contingency planning process; and develop and evaluate a contingency plan.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic principles and concepts associated with emergency planning and response by:
    a. differentiating between emergency and disaster;
    b. listing the phases of a comprehensive emergency management program;
    c. listing examples of federal regulations requiring emergency preparedness in industrial facilities;
    d. defining natural hazards and technological hazards;
    e. describing nature and cause, measurement, secondary effects, and detection of samples of natural and technological hazards;
    f. listing eight steps for developing a contingency plan;
    g. naming six common pitfalls in emergency planning;
    h. describing preliminary elements of a comprehensive emergency plan;
    i. describing basic plan elements of a comprehensive emergency plan;
    j. naming two prevention procedures;
    k. listing five preparedness procedures;
    l. describing effectiveness of response procedures;
    m. listing five subjects included in recovery procedures;
    n. explaining the importance of evaluating, reviewing, and maintaining an emergency plan;
    o. explaining SARAs Title III;
    p. explaining the importance of integrating facility plans with community plans;
    q. writing the full name for NRT;
    r. explaining notification procedures recommended by NRT;
    s. explaining NRT recommendations for direction and control of resources in an emergency;
    t. describing several methods of communication among responders;
    u. explaining the importance of warning systems and emergency public notification;
    v. describing an effective emergency resource management program;
    w. listing two basic methods of protection from natural and technological hazards;
    x. listing key factors in large scale evacuations;
    y. explaining the roles of FEMA and NRC in planning evacuations;
    z. describing the systematic approach to emergency training programs;
    aa. listing information included in a job/task profile;
    ab. listing steps involved in emergency training curriculum design and development;
    ac. explaining the importance of trainee and program evaluation;
    ad. naming two basic functions of emergency drills and exercises;
    ae. listing four types of emergency exercises;
    af. describing the scenario narrative;
    ag. writing the full name for MSEL;
    ah. explaining the purpose of planned, written problems and messages;
    ai. explaining the roles of controller, simulator, and evaluator;
    aj. listing four primary goals of exercise evaluation;
    ak. listing three stages of evaluation;
    al. writing list of objectives for a community education program;
    am. explaining importance of media relations in emergencies;
    an. listing elements of an emergency media relation's procedure;
    ao. naming types of onsite facilities that support emergency operations;
    ap. naming types of equipment that support emergency operations;
    aq. listing six steps in developing a plant's emergency communications system;
    ar. describing the use of computers in an emergency preparedness program;
    as. explaining the use of an expert system in managing industrial emergencies;
    at. listing tools available to emergency responders;
    au. explaining the benefits of auditing an emergency preparedness program;
    av. explaining the importance of an emergency management audit report.

EPCT 1327 - Basic Water Works Operations

General

Course Key
12109

Course Rubric	Course Number	Course Title
EPCT	1327	Basic Water Works Operation
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Study of conventional water treatment plants including administration and management. Emphasis on the operation of motors, pumps, and disinfection in small water plants.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define surface and ground water treatment; describe the disinfection process; explain coagulation, flocculation, sedimentation, and filtration; evaluate chemical solutions and reactions; and operate water distribution and storage facilities.

Upon successful completion of this course, students will:

1. Identify/Discuss fundamental laboratory components of water analysis
2. Discuss proper techniques used in the laboratory
3. Define/Discuss basic chemistry and associated mathematical concepts used in water analysis
4. Describe safe work practices for the laboratory
5. Describe the concept of quality assurance and quality control (QA/QC) in the water lab
6. Identify/Discuss the analysis of pH
7. Explain the analysis of alkalinity
8. Clarify/Explain the significance of jar test results
9. Explain the analysis of turbidity
10. Examine/Discuss the fundamental laboratory components of water analysis
11. Describe the fundamentals of microbiology pertaining to water treatment
12. Describe the analysis of ammonia and related nitrogen compounds in the disinfection process
13. Describe/Discuss the chemistry relevant to the analysis of Total Organic Carbon (TOC)
14. Review/Discuss the secondary constituents iron, manganese, sulfate, and fluoride and the relevant analytical procedures
15. Explain groundwater production
16. Describe the physical characteristic of aquifers in Texas
17. Summarize the considerations used in selecting a well site
18. Outline the procedures in constructing a well
19. Give examples of the characteristics of groundwater
20. Explain groundwater treatment alternatives
21. Describe the disinfection requirements for groundwater
22. Discuss the types of pumps and motors used in groundwater operations
23. Outline procedures for proper operation of a groundwater system
24. Summarize safety precautions for the safe operation of a groundwater system
25. Outline reporting requirements for groundwater systems
26. Solve mathematical problems pertaining to the groundwater systems
27. Understand the importance of public health protection
28. Describe the Milwaukee water-borne disease experience
29. Comprehend the importance of performance evaluations
30. Summarize the Texas Optimization Program
31. Define source water management
32. Evaluate raw water quality
33. Identify laboratory equipment
34. Explain the process control test for pH, turbidity, temperature, total alkalinity and jar testing
35. Summarize steps to complete treatment for physical and chemical pre-treatment, coagulation, flocculation, sedimentation, filtration, filter operation, disinfection, safety, rules and regulations, recordkeeping, and math skills

EPCT 1328 - Basic Wastewater Operations

General

Course Key
13643

Course Rubric
EPCT

Course Number
1328

Course Title
Basic Wastewater Operations

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Introduction to the information and operational skills needed for wastewater treatment plants.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define the characteristics of wastewater; explain the collection system; differentiate the wastewater treatment process; exhibit knowledge of the operations of different treatments plants; and identify state and federal rules and regulations.

Upon successful completion of this course, students will:

1. List the types of water resources in Texas
2. Describe how water resources are contaminated
3. Discuss how to protect water from contamination
4. Explain the water cycles
5. Explain wastewater treatment plant operator accountability
6. Describe the legal requirements for wastewater treatment
7. Describe the role of the Texas Commission on Environmental Quality (TCEQ) in wastewater treatment
8. List the characteristics of wastewater
9. Describe the sampling requirements for wastewater
10. Describe the sources of wastewater
11. Recognize the sources of wastewater
12. Discuss the purpose of a sewer use ordinance
13. List the parts of the collection system
14. Describe the components used in collection system construction
15. Explain the importance of construction safety
16. Describe the procedures for collection system maintenance
17. Explain the need for lift stations
18. Discuss the purpose of the Environmental Protection Agency's (EPA) Capacity Assurance, Management, Operation, and Maintenance Program
19. Describe the purpose of preliminary treatment
20. Discuss the importance of flow measurement
21. Describe the purpose of the settling tank
22. List the factors that affect settling
23. Describe the settling zones
24. Explain the function of clarifier
25. Describe the function of an Imhoff tank
26. Describe the activated sludge process
27. List the primary components of the activated sludge process
28. Discuss the factors for proper process operation
29. List the activated sludge microorganisms
30. Discuss the method to evaluate the quality of sludge
31. Describe the modifications of the activated sludge process
32. Describe the operation of a trickling filter
33. Describe the operation of a rotating biological contactor
34. Describe the purpose of pond systems
35. List the types of ponds
36. Discuss the parameters considered in selecting ponds as a treatment process
37. Discuss the conditions an operator should maintain daily
38. List the analysis an operator should perform daily on a pond system
39. Explain the purpose of sludge digestion
40. List the types of sludge
41. Describe the anaerobic sludge digestion process
42. Discuss the aerobic sludge digestion process
43. Describe the methods of sludge dewatering
44. List the methods of sludge disposal
45. Discuss the importance of disinfecting wastewater effluent
46. Describe methods often used to disinfect wastewater effluent
47. List the residual test methods
48. List the factors that influence disinfection
49. List uses of chlorine other than wastewater treatment
50. Describe chlorinator designs for wastewater treatment
51. Describe the regulatory requirements in regard to disinfection
52. Explain the purpose of wastewater dechlorination
53. Discuss the design criteria for reusing wastewater effluent
54. Discuss the federal and state laws regarding safety
55. List the elements of a safety program for wastewater treatment plants
56. List the general hazards that are encountered in the wastewater industry
57. List the specific hazards found in the wastewater industry
58. Calculate areas of squares, rectangles, and circles
59. Calculate volume in cubic feet and gallons of rectangular and cylindrical tanks
60. Solve problems requiring the use of conversion factors
61. Calculate dosage problems related to wastewater treatment
62. Solve problems of detention time in days, hours, and minutes
63. Calculate velocity in ft/sec relating to wastewater treatment

EPCT 1341 - Principles of Industrial Hygiene

General

Course Key
217

Course Rubric	Course Number	Course Title
EPCT	1341	Principles of Industrial Hygiene

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Concepts in threshold limits, dose response, and general recognition of occupational hazards, including sampling statistics, calibration, and equipment use. A study of the control of occupational hazards and sample collection and evaluation methods.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain terminology and discuss concepts of industrial hygiene and toxicology; describe the anatomy and function of the routes of entry; explain the function of the major body systems; identify major health hazards found in the workplace and discuss their effects; apply threshold limit values and other appropriate workplace exposure standards; and prepare a report based on research and investigation of an area of industrial hygiene.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the basic principles and concepts of industrial hygiene by:
    a. defining sampling;
    b. defining monitoring;
    c. differentiating between sampling and monitoring;
    d. describing typical situations requiring sampling and monitoring;
    e. explaining relationship of sampling and monitoring to OSHA;
    f. explaining technician's interaction with environmental professionals;
    g. describing data uses and methods used for EPA's five analytical levels;
    h. identifying unit(s) of concentration associated with sampling/monitoring media/wastes;
    i. performing metric to metric and English to metric conversions;
    j. describing current practices of computer use in sampling and monitoring;
    k. identifying components of an oxygen meter, a combustible gas indicator, a digital pH meter, and a toxic gas detector;
    l. explaining principle of operation of an oxygen meter, a combustible gas indicator, a digital pH meter, and a toxic gas detector;
    m. stating percentage of oxygen in air at sea level;
    n. stating atmospheric pressure's effect upon oxygen in air;
    o. stating lower and upper percentages of oxygen in air (sea level) considered to indicate danger;
    p. listing five situations in which an oxygen deficient atmosphere should be suspected;
    q. discussing significance of findings indicating an oxygen deficient atmosphere;
    r. stating oxygen meter's advantages/disadvantages;
    s. defining Lower Explosive Limit (LEL);
    t. defining Upper Explosive Limit (UEL);
    u. defining flammable range;
    v. calculating concentration of gas in air and interpreting results;
    w. discussing factors influencing instrument reading quality;
    x. differentiating between survey meters and personal dosimeters;
    y. determining category of device used to monitor an area or a person;
    z. explaining difference between adjustment and calibration of a device;
    aa. explaining meter adjustment prior to use;
    ab. performing a calibration and battery check on a given meter;
    ac. demonstrating uses of monitoring devices on sample gases;
    ad. assessing concentration or degree of hazard accurately;
    ae. demonstrating end calibration checks and document calibration checks and measurements;
    af. referring to appropriate compliance regulations when using monitoring data for a hypothetical situation;
    ag. evaluating hypothetical situation data;
    ah. recommending next course of action;
    ai. defining blanks;
    aj. defining contamination;
    ak. explaining how blanks and contamination relate to quality assurance in sampling;
    al. discussing ethical and legal considerations regarding sampling bias;
    am. determining preservation method for a list of analytes;
    an. describing use and calibration of personal sampling pumps;
    ao. describing procedure for cleaning equipment;
    ap. explaining when to decontaminate equipment or use fresh sampling equipment during collection activities.

EPCT 1344 - Environmental Sampling and Analysis

General

Course Key
222

Course Rubric
EPCT

Course Number
1344

Course Title
Environmental Sampling and Analysis

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Sampling protocol, procedures, quality control, preservation technology, and field analysis. Emphasis on analysis commonly performed by the field technician.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Select monitoring equipment; calibrate instruments for sampling and field analysis; identify preservation procedures; demonstrate representative sampling methods; and prepare and evaluate documentation associated with sampling and field analysis.

Upon successful completion of this course, students will:

1. Define sampling
2. Define monitoring
3. Differentiate between sampling and monitoring
4. Describe typical situations requiring sampling and monitoring
5. Explain relationship of sampling and monitoring to OSHA
6. Explain technician's interaction with environmental professionals
7. Describe data uses and methods used for EPA's five analytical levels
8. Identify unit(s) of concentration associated with sampling/monitoring media/wastes
9. Perform metric to metric and English to metric conversions
10. Describe current practices of computer use in sampling and monitoring
11. Identify components and explain principle of operation of an oxygen meter
12. Identify components and explain principle of operation of a combustible gas indicator (CGI)
13. Identify components and explain principle of operation of a digital pH meter
14. Identify components and explain principle of operations of a toxic gas detector
15. State percentage of oxygen in air at sea level
16. State atmospheric pressure's effect upon oxygen in air
17. State lower and upper percentages of oxygen in air (sea level) considered to indicate danger
18. List five situations in which an oxygen deficient atmosphere should be suspected
19. Discuss significance of findings indicating an oxygen deficient atmosphere
20. State oxygen meter's advantages/disadvantages
21. Define Lower Explosive Limit (LEL)
22. Define Upper Explosive Limit (UEL)
23. Define flammable range
24. Calculate concentration of gas in air and interpret results
25. Discuss factors influencing instrument reading quality
26. Differentiate between survey meters and personal dosimeters
27. Determine category of device used to monitor an area or a person
28. Explain difference between adjustment and calibration of a device
29. Explain meter adjustment prior to use
30. Perform a calibration and battery check on a given meter
31. Demonstrate uses of monitoring devices on sample gases
32. Assess concentration or degree of hazard accurately
33. Demonstrate end calibration checks and document calibration checks and measurements
34. Refer to appropriate compliance regulations, using monitoring data for a hypothetical situation
35. Evaluate hypothetical situation data
36. Recommend next course of action
37. Define blanks
38. Define contamination
39. Explain how blanks and contamination relate to quality assurance in sampling
40. Discuss ethical and legal considerations regarding sampling bias
41. Determine preservation method for a list of analytes
42. Describe use and calibration of personal sampling pumps
43. Describe procedure for cleaning equipment
44. Explain when to decontaminate equipment or use fresh sampling equipment during collection activities

EPCT 1401 - HAZWOPER Training and Related Topics

General

Course Key
242

Course Rubric	Course Number	Course Title
EPCT	1401	Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Minimum certification requirements in the Code of Federal Regulations (CFR) for a hazardous waste site worker as found in 29 CFR-1910.120 and 40 CFR-264.16.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify hazards associated with handling of hazardous waste at hazardous waste sites, cleanup operations, and corrective actions, demonstrate knowledge of site-specific Health and Safety Plan (HASP) and sampling and monitoring techniques; and identify minimum training requirements in 40 CFR.264.16.

Upon successful completion of this course, students will:

1. Describe employees' rights and responsibilities provided by OSHA
2. Recognize OSHA and EPA standards applicable to hazardous waste sites
3. Identify provisions of 29 CFR 1910.120 applicable to waste site work
4. Describe purpose and content of employer's general safety and health program
5. Identify relevant portions of a complete site specific safety and health plan
6. Identify key elements of an emergency response plan
7. State purpose and function of site characterization
8. Describe three phrases involved in site characterization
9. Perform a characterization of a work site
10. List four main routes of toxic substance entry into the body
11. Name and describe two categories of toxic chemicals
12. Describe hazards posed by working on a hazardous waste site
13. Describe and utilize a model for hazard recognition
14. Identify measures taken to recognize and prevent injury from particular hazards
15. Describe effects of human chemical exposure to specific types of hazardous chemicals
16. Identify potentially hazardous outcomes of chemical incompatibility
17. Identify types of potential exposures to radiological hazards
18. Describe and differentiate between four types of radiation
19. Describe biological effects of radiation exposure
20. List three methods of protection from radioactive sources
21. List main categories of respirators
22. Differentiate between demand and pressure demand SCBAs
23. List components of a respirator program required by OSHA
24. List limitations associated with major types of respirators
25. List types of respirators acceptable for unknown, IDLH, and/or oxygen-deficient atmospheres
26. Identify major components of a written personal protective equipment program
27. Define permeation, penetration, and degradation
28. Interpret basic permeation data for Chemical Protective Clothing (CPC)
29. Identify differences between Level A, Level B, Level C, and Level D protective ensembles
30. Describe signs and symptoms of heat stress
31. List types of protective equipment for eyes, face, head, feet, and hands
32. Identify key procedures used in an effective site control program
33. Name three most commonly used site work zones
34. Identify decontamination principles used in the field
35. Describe physical and chemical decontamination methods
36. Identify, list, and describe procedures for emergency decontamination
37. Specify purpose of a medical surveillance program
38. Explain value and maintenance of workers' own occupational history reports
39. Identify information provided to physician by employer regarding suspected occupational hazards
40. Define and explain instantaneous samples and integrated samples
41. Identify two media types used in active sampling systems
42. Identify two types of passive sampling devices
43. Identify three characteristics of air monitoring instruments
44. Identify types of air monitoring equipment
45. Describe limitations of each kind of air monitoring equipment and method
46. Interpret readings of common instruments
47. Identify components of a sampling plan
48. List two problems that may be encountered when taking or processing samples at a waste site
49. Describe OSHA and EPA requirements applicable to safe work practices
50. Identify standard operating procedures used for worker protection at hazardous waste sites
51. Identify hazards related to drums
52. Identify, list, and describe manual and mechanical drum handling techniques
53. Identify requirements involved in transportation of hazardous wastes
54. Define confined space and state permitting requirements
55. Describe ways confined spaces present hazardous occupational conditions
56. Describe preliminary steps for safe confined space entry
57. Define elements of and regulatory requirements for a confined space training program
58. List site conditions taken into account before an excavation project begins
59. Describe two methods to protect workers from a trench cave in
60. Name three hazards to workers that exist during excavation work
61. Describe elements of an effective emergency contingency/spill response plan
62. List considerations when planning for decontamination in medical emergencies
63. Identify priorities for decontamination in medical emergencies
64. Select correct procedures in spill response
65. State importance of nonparticipation in a spill response if training or equipment is inadequate
66. Outline emergency response steps
67. List several items which should be available for spill control
68. Describe importance of vertical and lateral containment in an environmental spill
69. List four types of environmental spills and a containment method for each
70. Describe methods available to contain floating products in a waterway

EPCT 1407 - Intro to Environmental Safety/Health

General

Course Key
10527

Course Rubric	Course Number	Course Title
EPCT	1407	Introduction to Environmental Safety and Health

Semester Credit Hours	Lecture Hours	Lab Hours
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) An historic overview of environmental safety and health. Emphasis on the use of occupational safety and health codes.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the historical impact of the safety and health movement; and interpret and summarize safety and health standards based on student-conducted research.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the basic principles and concepts of environmental health and safety programs by:
    a. describing typical situations affecting environmental, health, and safety program applications;
    b. explaining the relationship of environmental, health, and safety programs in the industry with the EPA and OSHA;
    c. explaining the technician's interaction with environmental professionals in both the public and private sectors;
    d. describing current practices of computer use in environmental, health, and safety applications;
    e. discussing factors influencing environmental, health, and safety in the workplace;
    f. differentiating between environmental and safety devices used in monitoring the environment and workplace safety;
    g. identifying the components of and the principle of operation of monitoring devices used in environmental health and safety programs;
    h. assessing the workplace accurately for safety hazards and instances of environmental noncompliance, analyzing corrective measures, and recommending the next course of action;
    i. demonstrating the ability to investigate and refer to appropriate compliance regulations in the fields of environmental health and safety;
    j. discussing ethical and legal considerations affecting environmental health and safety concerns in the workplace.

EPCT 1440 - Industrial Chemical Processes

General

Course Key
251

Course Rubric
EPCT

Course Number
1440

Course Title
Industrial Chemical Processes

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) An overview of chemical processes used in the chemical industry. Recommended Prerequisite: CHEM-1405

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take chem-1405;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CHEM 1405

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify laboratory and field procedures used in industrial chemistry; interpret and compare representative industrial waste handling, storage, and disposal procedures; describe chemical procedures in common industrial use; and interpret and compare representative safety procedures.

Upon successful completion of this course, students will:

1. Recall 4 sources of material balance information
2. Recall 3 factors that must be considered when preparing material balances
3. State 2 categories of products that chemical process industries provide
4. State 2 categories of forming/shaping materials for durable goods
5. List 3 categories for altering or improving a part/product
6. List 3 categories of surface finishing operations
7. Write 2 examples of operations for forming metals in a solid state
8. List 3 types of mechanical joining operations
9. List 3 functions of surface finishing operations
10. List 4 types of coating used in surface finishing
11. List the strategies of the Hazardous Waste Management Hierarchy
12. List 2 types of acid that comprise the most common forms of acid precipitation
13. Describe 2 examples of extensive environmental damage caused by acid rain
14. Explain how acid rain can increase heavy metal pollution of mountain streams
15. Identify living forms protected by the earth's stratospheric ozone envelope
16. Name 3 substances with the ability to reach the stratosphere and break down ozone molecules
17. State consequences for human health and the environment resulting from depletion of the ozone layer
18. Write full chemical names for PCB, CFC, and TCE
19. State primary use of PCBs
20. State primary industrial source(s) of TCE
21. State the primary public health concern associated with TCE
22. List 5 hazardous heavy metal wastes
23. List 5 major sources of heavy metal wastes
24. List 6 typical considerations for deciding assessment priorities
25. List 4 site inspection guidelines
26. List 3 major sources of waste resulting from improper inventory control
27. State the chemical category that raises public concern about waste incinerator operation
28. List 7 process and material modification techniques and technologies
29. Explain principles of operation and advantages of each technique
30. List 3 recycling technologies
31. Explain principles of operation and advantages of each technology
32. Explain cradle to grave liability for hazardous waste generators
33. Define and differentiate waste reduction and recycling according to EPA
34. List the 5 halogens
35. Identify halogenated and non-halogenated hydrocarbons and distinguish halogenated from non-halogenated hydrocarbons relative to the physical characteristic of flammability
36. Explain why halogenated hydrocarbons are preferred for a vapor degreasing operation
37. Write the words represented by CFC and VOC (State the physical characteristic of a material that categorizes it as a VOC)
38. Explain how VOCs contribute to environmental pollution
39. Explain how CFCs contribute to environmental pollution
40. List 2 synonyms for freon
41. Explain why fluoro-chlorinated solvents are preferred to non-halogenated solvents in electronics industry
42. State health effects of exposure to halogenated and non-halogenated solvents
43. Write the words represented by PCB
44. State primary source of PCB waste
45. State 2 strategies for managing spent industrial oils
46. List primary concerns for an environmental department regarding power generation and heat transfer operations
47. List primary concerns for an environmental department regarding process cooling systems, air conditioning, and ventilation
48. List primary concerns for an environmental department regarding process water conditioning and wastewater treatment
49. Explain leak (air emissions) testing
50. Explain the back door
51. Explain why support services such as laboratories, maintenance shops, and garages are of concern to environmental departments
52. List 5 basic processes for producing durable goods
53. Define compounding, curing accelerator, degradation product, feedstock, particulate, residual, the acronyms PSIG and IDLH and RCRA disposal

ESOL 0301 - ESOL Oral Communication I

General

Course Key
16387

Course Rubric
ESOL

Course Number
0301

Course Title
ESOL Oral Communication I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Develops lower-advanced listening and speaking skills in speakers of languages other than English and prepares them to function in educational, vocational and/or personal English-speaking contexts. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group: # Take INRW-NCR1 INRW-DX02 INRW-ESS1; # Take INRW-NCR1 INRW-DX02 INRW-ESS2; # Take INRW-NCR1 INRW-DX02 INRW-ESS3; # Take INRW-CR01 INRW-ESS1; # Take ESOL-LVL1;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

ESOL 0302 - ESOL Oral Communication II

General

Course Key
16388

Course Rubric
ESOL

Course Number
0302

Course Title
ESOL Oral Communication II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Develops middle-advanced listening and speaking skills in speakers of languages other than English and prepares them to function in educational, vocational and/or personal English-speaking contexts. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test or ESOL-0301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-NCR1 INRW-DX03 INRW-ESS1 # INRW-NCR1 INRW-DX03 INRW-ESS2 # INRW-NCR1 INRW-DX04 INRW-ESS1 # INRW-NCR1 INRW-DX04 INRW-ESS2 # INRW-CR01 INRW-ESS1; # Take ESOL-LVL2 ESOL-0301(13783) ESOL-0002 or ESOL-0003;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0303 - ESOL Oral Communication III

General

Course Key
16389

Course Rubric
ESOL

Course Number
0303

Course Title
ESOL Oral Communication III

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Develops upper-advanced listening and speaking skills in speakers of languages other than English and prepares them to function in educational, vocational and/or personal English-speaking contexts. This course cannot be used to fulfill degree requirements. Required prerequisite: Appropriate scores on a TCC - approved placement test or ESOL-0302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-CR01 INRW-ESS2; # Take ESOL-LVL3 ESOL-0302(13784) or ESOL-0003;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0304 - Grammar for Non-Native Speakers I

General

Course Key
16390

Course Rubric
ESOL

Course Number
0304

Course Title
Grammar for Non-Native Speakers I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Focuses on Standard English grammar usage for academic purposes. Open only to non-native speakers. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-NCR1 INRW-DX02 INRW-ESS1; # Take INRW-NCR1 INRW-DX02 INRW-ESS2; # Take INRW-NCR1 INRW-DX02 INRW-ESS3; # Take INRW-CR01 INRW-ESS1; # Take ESOL-LVL1 ESOL-0004 ESOL-0005 or ESOL-0006;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0305 - Grammar for Non-Native Speakers II

General

Course Key
16392

Course Rubric
ESOL

Course Number
0305

Course Title
Grammar for Non-Native Speakers II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Focuses on Middle Advanced Standard English grammar usage for academic purposes. Open only to non-native speakers. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test or ESOL-0304

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Required

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-NCR1 INRW-DX03 INRW-ESS1 # INRW-NCR1 INRW-DX03 INRW-ESS2 # INRW-NCR1 INRW-DX04 INRW-ESS1 # INRW-NCR1 INRW-DX04 INRW-ESS2 # INRW-CR01 INRW-ESS1; # Take ESOL-LVL2 ESOL-0304(13786) ESOL-0005 or ESOL-0006;
A Subrequirement block where not all groups are required

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0306 - Grammar for Non-native Speakers III

General

Course Key
16393

Course Rubric
ESOL

Course Number
0306

Course Title
Grammar for Non-native Speakers III

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Focuses on Standard English grammar usage for academic purposes. Open only to non-native speakers. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test or ESOL-0305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Recommended

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-CR01 INRW-ESS2; # Take ESOL-LVL3 ESOL-0305(13788) or ESOL-0006;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0307 - ESOL Reading and Vocabulary I

General

Course Key
16394

Course Rubric
ESOL

Course Number
0307

Course Title
ESOL Reading and Vocabulary I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)Develops lower-advanced English reading proficiency and vocabulary for academic, career, or personal purposes in speakers of languages other than English and prepares them to function in a multicultural, multilingual society. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-NCR1 INRW-DX02 INRW-ESS1; # Take INRW-NCR1 INRW-DX02 INRW-ESS2; # Take INRW-NCR1 INRW-DX02 INRW-ESS3; # Take INRW-CR01 INRW-ESS1; # Take ESOL-LVL1 ESOL-0007 ESOL-0008 or ESOL-0009;
A Subrequirement block where not all groups are required

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0308 - ESOL Reading and Vocabulary II

General

Course Key
16395

Course Rubric
ESOL

Course Number
0308

Course Title
ESOL Reading and Vocabulary II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Develops middle-advanced English reading proficiency and vocabulary for academic, career, or personal purposes in speakers of languages other than English and prepares them to function in a multicultural, multilingual society. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC -approved placement test or ESOL-0307.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-NCR1 INRW-DX03 INRW-ESS1 # INRW-NCR1 INRW-DX03 INRW-ESS2 # INRW-NCR1 INRW-DX04 INRW-ESS1 # INRW-NCR1 INRW-DX04 INRW-ESS2 # INRW-CR01 INRW-ESS1; # Take ESOL-LVL2 ESOL-0307(13790) ESOL-0008 or ESOL-0009;
A Subrequirement block where not all groups are required

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0309 - ESOL Reading and Vocabulary III

General

Course Key
16396

Course Rubric
ESOL

Course Number
0309

Course Title
ESOL Reading and Vocabulary III

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0).Develops upper-advanced English reading proficiency and vocabulary for academic, career, or personal purposes in speakers of languages other than English and prepares them to function in a multicultural, multilingual society. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test or ESOL-0308.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-CR01 INRW-ESS2; # Take ESOL-LVL3 ESOL-0308(13791) or ESOL-0009;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0310 - Writing for Non-Native Speakers I

General

Course Key
16397

Course Rubric
ESOL

Course Number
0310

Course Title
Writing for Non-Native Speakers I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Focuses on lower-advanced strategies and techniques of writing and composition. Open only to non-native speakers. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for the prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-NCR1 INRW-DX02 INRW-ESS1; # Take INRW-NCR1 INRW-DX02 INRW-ESS2; # Take INRW-NCR1 INRW-DX02 INRW-ESS3; # Take INRW-CR01 INRW-ESS1; # Take ESOL-LVL1 ESOL-0010 ESOL-1111 or ESOL-0012;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0311 - Writing for Non-Native Speakers II

General

Course Key
16398

Course Rubric
ESOL

Course Number
0311

Course Title
Writing for Non-Native Speakers II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Focuses on middle-advanced strategies and techniques of writing and composition. Open only to non-native speakers. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test or ESOL-0310.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-NCR1 INRW-DX03 INRW-ESS1 # INRW-NCR1 INRW-DX03 INRW-ESS2 # INRW-NCR1 INRW-DX04 INRW-ESS1 # INRW-NCR1 INRW-DX04 INRW-ESS2 # INRW-CR01 INRW-ESS1; # Take ESOL-LVL2 ESOL-0310(13793) ESOL-1111 or ESOL-0012;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

ESOL 0312 - Writing for Non-Native Speakers III

General

Course Key
16399

Course Rubric
ESOL

Course Number
0312

Course Title
Writing for Non-Native Speakers III

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Focuses on strategies and techniques of writing and composition. Open only to non-native speakers. This course cannot be used to fulfill degree requirements. Required Prerequisite: Appropriate scores on a TCC-approved placement test or ESOL-0311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # INRW-CR01 INRW-ESS2; # Take ESOL-LVL3 ESOL-0311(13794) or ESOL-0012;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

FDNS 1103 - Introduction to Dietetics

General

Course Key
338

Course Rubric
FDNS

Course Number
1103

Course Title
Introduction to Dietetics

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0). An introduction to the profession of dietetics in health care delivery systems. Includes roles and responsibilities of dietetics team members, standards, and ethics in dietetic practice. Emphasis on effective professional communications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Compare dietetics careers; explain Dietetic Technician, Registered (DTR) roles; describe effective human relations; and state patient rights and professional ethics and principles.

Upon successful completion of this course, students will:

1. Differentiate various career paths in dietetics by:
    a. comparing the roles and responsibilities of dietetics practitioners in a variety of job settings (1a, 1b, 2c, 2d);
    b. outlining the education and training routes of dietetics careers, including Registered Dietitian (RD), Dietetic Technician Registered (DTR), and Dietary Manager (1a, 1b, 2c);
    c. Perform self-assessment that includes awareness in terms of learning and leadership style and cultural orientation and develop goals for self-improvement (KNDT 5.1) (1a, 1b, 1c, 2a);
    d. identifying and articulating one's skills, strengths, knowledge, and experiences relevant to the position desired and career goals (KNDT 5.2, CNDT 5.2) (1a, 1b, 1c, 2a, 2b, 2d);
    e. identifying and describing the work of inter-professional teams and the roles of others with whom the nutrition and dietetics technician, registered collaborates in the delivery of food and nutrition services (KNDT 2.4) (1a, 1c).
2. Demonstrate understanding of Dietetic Program's requirements by:
    a. recalling the educational and practicum requirements of the Dietetic Technician program and Dietary Manager Program (1a, 2c);
    b. discussing the preparation involved for a successful practicum experience (1a, 1c);
    c. explaining verification requirements for becoming a Dietetic Technician, Registered and Certified Dietary Manager (1a, 1b);
    d. completing all necessary documents to apply to the Dietetic Technician program and Dietary Manager program (1a, 1b).
3. Demonstrate an understanding of the code of ethics in the dietetics professions by:
    a. stating the purpose of the Code of Ethics for the Profession of Nutrition and Dietetics (1a, 1b, 2c);
    b. discussing the importance of patient confidentiality (1a, 1b);
    c. providing examples of unethical behaviors (1a, 1b, 2c);
    d. applying Dietetics Code of Ethics to case scenarios (1a, 1b, 2b, 2c).
4. Demonstrate effective and professional oral and written communication skills for entry into technical practice (KNDT 2.1) by:
    a. using clear and effective oral and/or written communication (CNDT 2.2) (1a, 1b);
    b. discussing strategies to improve communication skills (1c, 1c, 2b);
    c. exhibiting professionalism through interpersonal communication (1a, 1c, 2b);
    d. showing cultural humility in interactions with colleagues, staff, clients, patients, and the public (CNDT 2.9) (1a, 1b, 1c, 2b, 2c).
5. Demonstrate identification with the nutrition and dietetics profession by:
    a. discussing the history of the dietetics profession (1a, 1b, 2c);
    b. listing the benefits of membership in the Academy of Nutrition and Dietetics (1a, 1b);
    c. participating in a nutrition and dietetics professional organization and explain the significant role of the organization (KNDT 2.8) (1a, 1c, 2b);
    d. actively contributing to nutrition and dietetics professional and community organizations (CNDT 2.7) (1a, 1c, 2b);
    e. describing the governance of nutrition and dietetics practice, such as the Scope of Practice for the Nutrition and Dietetics Technician, Registered and the Code of Ethics for the Profession of Nutrition and Dietetics (KNDT 2.3) (1a, 1c, 2b, 2c).

FDNS 1168 - Practicum - Dietary Management

General

Course Key
16514

Course Rubric
FDNS

Course Number
1168

Course Title
Practicum - Dietary Management

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
10

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-10) Practical, general workplace training supported by an individualized learning plan developed by employer, College, and student. The plan relates the workplace training and experiences to the student's general and technical course of study. Application of dietary management techniques and principles in institutional food service. See program director for additional practicum requirements. Required Prerequisite: FDNS 1370 or CHEF 1301 grade of "C" or better; FDNS 1103, HECO 1322, and DITA 1300, grade of "C" or better; DITA 1301 grade of "B" or better; Valid ServSafe Manager Certificate. Recommended Corequisite: IFWA-2446

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): FDNS 1370 or CHEF 1301 grade of "C" or better; FDNS 1103, HECO 1322, and DITA 1300; grade of "C" or better; DITA 1301 grade of "B" or better; and Valid ServSafe Manager Certificate

Recommended Co-Requisite(s): IFWA 2446

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Demonstrate how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice (KNDT 1.1) by:
    a. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols (KNDT 1.2);
    b. using current information technologies to develop, manage, and disseminate nutrition information and data (CDNT 4.3);
    c. accessing data, references, patient education materials, consumer, and other information from credible sources (CNDT 1.1);
    d. evaluating information to determine if it is consistent with accepted scientific evidence (CNDT 1.2);
    e. applying critical thinking skills and evaluate effectiveness of nutrition intervention (KNDT 1.3).
2. Examine quantity food production equipment in the food service organization by:
    a. identifying the equipment in the kitchen and explaining each piece's use in quantity production;
    b. developing a procedure for the operation, cleaning, and sanitizing of a piece of institutional equipment;
    c. operating, cleaning, and maintaining selective food service equipment;
    d. demonstrating the proper procedure for ware washing manually or in a ware washing machine.
3. Examine quantity food production and serving in the food service organization by:
    a. participating in the preparation, portioning, and service of various food items such as meats/entrees, vegetables, salads, and soups;
    b. participating in preparing and taste testing of modified consistency food products and nutritional supplements;
    c. developing a forecast for the amount of food to be produced for a specific recipe;
    d. identifying how production records are used in the facility.
4. Apply safety and sanitation principles related to food, personnel, and consumers (KNDT 4.3) by:
    a. recalling storage principles for different types of products;
    b. outlining receiving procedures for various food types;
    c. identifying inventory recording methods used by the facility;
    d. identifying the chemicals used for cleaning and sanitizing;
    e. identifying HACCP in the facility;
    f. completing a sanitation inspection of the facility.
5. Plan nutritionally sound meals, menus and meal plans that promote health and disease management and meet client's/patient's needs (KNDT 3.4) by:
    a. reviewing the recipe file of a facility;
    b. discussing menu planning with the facility manager, including the influence of regulatory agencies on menu planning, recipe adjustment, use of commodity foods in the federally funded nutrition programs, and marketing strategies;
    c. evaluating a menu for nutritional content;
    d. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups, and individuals (CNDT 3.8);
    e. demonstrating cultural humility, awareness of personal biases and an understanding of cultural differences as they contribute to diversity, equity, and inclusion (KNDT 2.5).
6. Perform supervisory functions for purchasing, production, and service of food that meets nutrition guidelines, cost parameters, and health needs (CNDT 3.7) by:
    a. outlining the food purchasing methods of the facility;
    b. reviewing the bidding and ordering process for foods and supplies;
    c. discussing how commodity foods affect the purchasing of foods in federally funded child nutrition programs;
    d. participating in purchasing activity in an institutional food service facility;
    e. proposing or using procedures as appropriate to the practice setting to promote sustainability, reduce waste, and protect the environment (CNDT 4.7).
7. Describe the process of budgeting by:
    a. explaining budgeting principles and techniques (KNDT 4.2);
    b. assisting in developing of a plan for a new service including budget (CNDT 4.4);
    c. identifying factors that affect cost control in the facility;
    d. calculating inventory value and turnover;
    e. discussing challenges to implementing and adhering to budgets (CNDT 4.5);
    f. outlining the facility's cash handling procedures;
    g. calculating labor hours and food cost for a recipe or menu.

8. Deliver nutrition services through quality improvement and customer satisfaction activities (CNDT 4.1) by:
    a. identifying healthcare delivery systems and policies that impact nutrition and dietetics technician practice (KNDT 4.4);
    b. discussing quality or process improvement strategies in the facility;
    c. identifying target areas for quality improvement for a food service system;
    d. collecting performance improvement, financial, productivity or outcomes data and compare it to established criteria (CNDT 1.3);
    e. monitoring patient's nutrition status and effectiveness of dietary intervention;
    f. assisting with marketing clinical and customer services (CNDT 4.6);
    g. conducting a customer satisfaction or a plate waste study at the facility;
    h. implementing actions based on care plans, protocols, policies, and evidence-based practice (CNDT 1.4);
    i. following facility protocol in documentation and/or electronic charting.
9. Participate in the human resource management process by:
    a. defining management functions of human resources (KNDT 4.1);
    b. outlining the employee selection and hiring process;
    c. describing the orientation, training, and performance evaluation process for employees;
    d. interviewing the manager about their role and responsibility;
    e. discussing employee retention at the facility;
    f. practicing resolving differences or dealing with conflict, as appropriate (KNDT 5.4);
    g. developing a work schedule for employees at the facility;
    h. performing supervisory, education and training functions (CNDT 4.2).
10. Demonstrate effective interviewing and education methods for diverse individuals and groups (KNDT 2.2) by:
    a. reviewing current diet orders;
    b. comparing meal items served to diet order;
    c. reviewing patients' medical records;
    d. obtaining patients' preferences;
    e. collecting pertinent social, dietary, laboratory, and clinical data;
    f. performing nutrition screenings to identify at-risk patients;
    g. providing diet instructions to patients or families;
    h. demonstrating effective and professional oral and written communication skills sufficient for entry into technical practice (KNDT 2.1);
    i. using clear and effective oral and written communication (CNDT 2.2);
    j. presenting an educational session to a target population (KNDT 3.3).
11. Demonstrate active participation, teamwork, and contributions in group settings (CNDT 2.4) by:
    a. identifying and describing the work of inter-professional teams and the roles of others with whom the nutrition and dietetics technician, registered collaborates in the delivery of food and nutrition services (KNDT 2.4);
    b. functioning as a member of inter-professional teams (CNDT 2.5);
    c. referring situations outside the nutrition and dietetics technician scope of practice or area of competence to a registered dietitian nutritionist or other professional (CNDT 2.6);
    d. demonstrating professional attributes in all areas of practice (CNDT 2.8);
    e. practicing how to self-advocate for opportunities in a variety of settings (KNDT 5.3);
    f. identifying and articulating the value of precepting (CNDT 5.7).
12. Demonstrate identification with the nutrition and dietetics profession through activities such as participation in professional organizations by:
    a. participating in nutrition and dietetics professional organization and explain the significant role of the organization (KNDT 2.8);
    b. actively contribute to nutrition and dietetics professional and community organizations (CNDT 2.7);
    c. demonstrating professional attributes in all areas of practice (CNDT 2.8);
    d. following procedures and regulations as established by TCC Dietetics program and practicum sites;
    e. describing the governance of nutrition and dietetics practice, such as the Scope of Practice for the Nutrition and Dietetics Technician, Registered and the Code of Ethics for the Profession of Nutrition and Dietetics (KNDT 2.3) (CNDT 2.1);
    f. performing self-assessment that includes self-awareness in terms of learning and leadership styles and cultural orientation and develop goals for self-improvement (KNDT 5.1) (CDNT 5.1);
    g. identifying and articulating one's skills, strengths, knowledge and experiences relevant to the position desired and career goals (KNDT 5.2) (CNDT 5.2);
    h. defending a position on issues impacting the nutrition and dietetics profession (KNDT 2.9);
    i. advocating for opportunities in a variety of settings (CNDT 5.4).

FDNS 1309 - Nutrition in the Community

General

Course Key
16521

Course Rubric	Course Number	Course Title
FDNS	1309	Nutrition in the Community
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). A study of the nutritional status of populations at the national, state, and local community levels. Socioeconomic, cultural, and psychological influences on eating behavior, national and state health objectives, marketing strategies for objective implementation and community nutrition programs serving risk group populations. Basic teaching/counseling methods for the nutrition education of small groups and individual clients/patients. Note: A grade of "B" or better is required in this course to petition for FDNS 2168 Practicum - Community Nutrition/Wellness. Recommended Prerequisite: HECO 1322.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): HECO 1322

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop written and oral client education/counseling materials and evaluation criteria; apply basic principles of teaching, learning, and behavior modification and demonstrate oral and written communication skills to provide nutrition education to a broad range of populations in the community; describe specific nutrition problems with a multicultural view, identify groups at risk for malnutrition due to nutritional excesses/deficits; demonstrate accurate/practical food menu plan preparation; describe effects of changes in the environment on community nutrition, analyze local, state, federal community nutrition assistance programs, describe the results of national nutrition surveys and how they affect nutrition related public policies; and analyze the role of the dietetics professional in community nutrition.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of community nutrition practice by:
    a. describing the roles and qualifications of dietetics professionals in community nutrition;
    b. listing determinants of health;
    c. explaining the purpose of Healthy People objectives;
    d. giving examples of leading health indicators.
2. Apply principles of epidemiology to nutrition by:
    a. defining common epidemiologic terminologies as related to risk, risk factors, rate, relative risk, incidence, and prevalence;
    b. contrasting the types of epidemiological studies: correlational, cross-sectional, cohort, case-control, and randomized controlled trials;
    c. discussing scientific issues related to validity and reliability;
    d. describing national nutrition surveillance systems in the United States;
    e. explaining the development of DRI/RDA.
3. Assess the community needs and resources by:
    a. listing sources of data for assessing community condition;
    b. selecting appropriate methods to obtain data considering the cultural issues of target population;
    c. identifying food and nutrition resources within the community;
    d. identifying health care delivery systems and policies that impact nutrition and dietetics technician practice;
    e. reviewing data on community health, environmental characteristics, and socioeconomic characteristics;
    f. using current nutrition informatics technology to develop, store, retrieve, and disseminate information and data.
4. Reference nutrition recommendations and dietary guidelines from national groups such as the United States Department of Agriculture, the Academy of Nutrition and Dietetics, the Surgeon General's Report on Nutrition and Health, the American Heart Association, the American Diabetes Association, and the American Cancer Society.
5. Outline eligibility requirements and benefits of the following federal nutrition and food assistance programs: the Supplemental Nutrition Assistance Program; the Special Supplemental Nutrition Program for Women, Infants, and Children; the Child Nutrition Program; the Expanded Food and Nutrition Education Program; and the Title III Nutrition Services.
6. Develop interventions to effect change and enhance wellness in diverse individuals and groups by:
    a. describing different types of intervention strategies;
    b. developing program goals and objectives;
    c. describing evaluation methods as related to formative, process, impact, outcome, structure, fiscal, and summative evaluations;
    d. developing a nutrition education lesson plan;
    e. preparing and delivering sound food and nutrition presentations to a target audience;
    f. developing an educational session for a target population;
    g. presenting an educational session to a target population;
    h. proposing and using procedures as appropriate to the practice setting to promote sustainability, reduce waste, and protect the environment;
    i. Perform specific activities of the Nutrition Care Process as assigned by registered dietitian nutritionists in accordance with the Scope of Practice for the Nutrition and Dietetics Technician, Registered for individuals, groups and populations in a variety of settings.
7. Promote health improvement, food safety, wellness, and disease prevention for the general population by:
    a. demonstrating how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice;
    b. accessing data, references, patient education materials, consumer, and other information from credible sources;
    c. evaluating information to determine if it is consistent with accepted scientific evidence;
    d. developing nutrition education materials, such as nutrition brochures and/or poster and display boards, for disease prevention and health improvement that are culturally and age appropriate and designed for the educational level of the audience;
    e. providing nutrition and lifestyle education to well populations at community events.
8. Assist with marketing clinical and customer services by:
    a. giving examples of social marketing;
    b. explaining the importance of the 4P of the marketing mix;
    c. conducting a S.W.O.T. analysis of self, a program, or an organization;
    d. selecting appropriate marketing or promotional practices.

9. Demonstrate identification with the nutrition and dietetics profession through activities such as participation in professional organizations and defending a position on issues impacting the nutrition and dietetics profession by:
    a. participating in a nutrition and dietetics professional organization and explain the significant role of the organization;
    b. actively contributing to nutrition and dietetics professional and community organizations;
    c. adhering to current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Practice for the Nutrition and Dietetics Technician, Registered, Standards of Practice, Standards of Professional Performance, and Code of Ethics for the Profession of Nutrition and Dietetics;
    d. identifying strategies for influencing policy and regulatory changes
    e. explaining legislative and regulatory policies related to nutrition and dietetics technician level of practice;
    f. Advocate for local, state, or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession.
10. Demonstrate cultural humility, awareness of personal biases and an understanding of cultural differences by:
    a. summarizing dietary practices of various religions;
    b. giving examples of cultural foods;
    c. explaining two cultural competence models;
    d. discussing the influence of culture on beliefs, values, and behaviors;
    e. identifying barriers in cross cultural communications;
    f. showing cultural humility in interactions with colleagues, staff, clients, and the public.
11. Demonstrate professional attributes in all areas of practice by:
    a. demonstrating effective and professional oral and written communication skills sufficient for entry into technical practice;
    b. using clear and effective oral and written communication;
    c. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols;
    d. applying critical thinking skills;
    e. demonstrating effective interviewing and education methods for diverse individuals and groups;
    f. demonstrating active participation, teamwork, and contributions in group settings.
12. Demonstrate skills, strengths, knowledge and experience relevant to leadership potential and professional growth for the nutrition and dietetics practitioner by:
    a. performing self-assessment that includes self-awareness in terms of learning and leadership styles and cultural orientation and develop goals for self-improvement;
    b. identifying and articulating one's skills, strengths, knowledge and experiences relevant to the position desired and career goals;
    c. promoting team involvement and values the skills of each member.

FDNS 1341 - Nutrition in the Life Cycle

General

Course Key
388

Course Rubric
FDNS

Course Number
1341

Course Title
Nutrition in the Life Cycle

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Analysis of nutrition assessment indicators for each age group. Social consideration to growth standards, maternal weight gains, eating behaviors of various age groups, and the physiology of aging as it relates to nutrient adequacy in the mature adult. Recommended Prerequisite: HECO-1322

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take heco-1322;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HECO 1322

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain life cycle (pre-pregnancy through old age) body balance concepts, describe life cycle body composition changes, explain life stage nutrition assessment concepts, explain special women's nutritional needs, explain pregnancy physiological changes, describe fetal/infant, child/adolescent growth as it relates to nutrition, describe nutritional needs/assessment through the life cycle; explain geriatric nutritional disorders, drug/nutrient interactions, food selection patterns.

Upon successful completion of this course, students will:

1. Provide nutrition recommendation for women during pregnancy by:
    a. describing fetal growth and development;
    b. reviewing nutrition needs during pregnancy for adolescent and adult;
    c. providing strategies to manage GI discomfort related to pregnancy;
    d. describing nutrition-related complications during pregnancy;
    e. calculating estimated due date and gestational age;
    f. plotting weight gain on pregnancy growth chart;
    g. assessing adequacy of weight gain;
    h. assessing nutritional status of women during pregnancy;
    i. developing intervention plan to address nutritional needs during pregnancy;
    j. performing specific activities of the Nutrition Care Process as assigned by Registered Dietician Nutritionists in accordance with the Scope of Nutrition and Dietetics Practice for the Nutrition and Dietetics Technician, Registered for individuals, groups and populations in a variety of settings.
2. Demonstrate knowledge needed to support breastfeeding women by:
    a. summarizing advantages of breastfeeding;
    b. explaining physiology changes during lactation;
    c. evaluating nutrition intake during lactation;
    d. describing breastfeeding techniques;
    e. describing common breastfeeding concerns including sore nipples, engorgement, quality and quantity of milk supplies, supplemental feeding, pumping and storage;
    f. providing strategies to manage common breastfeeding concerns.
3. Provide feeding recommendations for infants by:
    a. describing infant growth and development;
    b. reviewing infant nutritional needs;
    c. comparing breast milk to infant formula;
    d. demonstrating infant formula preparation;
    e. discussing introduction of solid food and its criteria;
    f. providing strategies for common nutrition or feeding concerns for infants;
    g. obtaining anthropometric measurements;
    h. plotting measurements on growth charts;

i. assessing adequacy of growth.

4. Assess nutritional intake and growth of children by:
    a. describing growth patterns of childhood and adolescence;
    b. explaining nutritional requirements during childhood and adolescence;
    c. obtaining anthropometric measurements;
    d. calculating BMI;
    e. plotting anthropometric measurements and BMI on growth chart;
    f. assessing growth of children and adolescents;
    g. discussing common nutrition and feeding concerns for children and adolescents;
    h. listing common characteristics of eating disorders;
    i. providing recommendations to prevent adult obesity.
5. Summarize nutrition concerns for infants and children with special health care needs by:
    a. describing the energy requirements of infants with LBW and VLBW;
    b. explaining the effects of developmental delay on nutrition status;
    c. listing conditions that may alter energy and nutrients requirements;
    d. providing recommendations to meet energy and nutrients needs;
    e. referring situations outside the nutrition and dietetics technician scope of practice or area of competence to a registered dietitian nutritionist or other professional;
    f. referring patient to early childhood intervention for evaluation of needs.
6. Describe the important relationship between dietary intake and health by:
    a. recalling components of a healthy lifestyle;
    b. estimating energy requirement of adults;
    c. listing strategies to prevent chronic diseases;
    d. identifying current food fads/popular diets;
    e. summarizing nutrition recommendations for adults.
7. Identify nutritional risks of elderly adults by:
    a. describing nutrition requirements of the elderly;
    b. discussing common nutrition and feeding concerns in the elderly;
    c. demonstrating an understanding of the Nutrition Care Process and clinical workflow elements for nutrition screening for referral to the registered dietician nutritionist, collection of assessment data, nutrition interventions, and monitoring strategies appropriate for the technician level of practice;
    d. applying critical thinking skills by identifying at-risk elderly for malnutrition;
    e. identifying drugs that interfere with intake and absorption of nutrients;
    f. reviewing food programs available for the elderly;
    g. developing an intervention to implement interventions to effect change and enhance wellness in diverse individuals and groups;
    h. providing nutrition recommendations for implementation based on care plans, protocols, policies, and evidence-based practice to address nutrition or feeding concerns.
8. Demonstrate an understanding of cultural competence and sensitivity by:
    a. recalling a food related cultural experience;
    b. describing foods pattern of various cultures/ethnicities;
    c. discussing preparation method of a cultural/ethnic food;
    d. providing culturally appropriate recommendations as related to the life stages;
    e. showing cultural humility in interactions with colleagues, staff, clients, patients, and the public.
9. Demonstrate professional attributes in all areas of practice by:
    a. demonstrating how to locate, interpret, evaluate and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice;
    b. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols;
    c. evaluating information to determine if it is consistent with accepted scientific evidence;
    d. integrating scientific information and research when completing case studies on health conditions of various life stages;
    e. demonstrating effective and professional oral and written communication skills sufficient for entry into technical practice;
    f. presenting an educational session to a target population;
    g. using current information technologies to develop, manage, and disseminate nutrition information and data.

FDNS 1346 - Medical Nutrition Therapy II

General

Course Key
16522

Course Rubric	Course Number	Course Title
FDNS	1346	Medical Nutrition Therapy II
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Principles and techniques of nutrition care for clients/patients at low to moderate nutrition risk. Includes a study of the scientific basis of diets for individuals with diabetes mellitus, pulmonary and cardiovascular disease, and weight control needs. Nutrition assessment parameters, nutrition care planning and evaluation, and menu editing methods. Topics also include nutrition care for healthy individuals, study of Human Immunodeficiency Virus, food allergy, and food intolerance. Requires a grade of "B" or better to enroll in FDNS 2169. Required Prerequisite: DITA-1300 with a C or better Recommended Pre/Corequisite: BIOL-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): DITA 1300 with a minimum grade of "C"

Recommended Pre/Co-requisite: BIOL-2401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Recall pathology terms, describe pathology and medical/pharmacological treatment of disorders of weight management, cardiovascular diseases and diabetes; evaluate client laboratory data, food/medication interactions; assess simulated client nutritional status, special needs, analyze food intake, develop nutrition care plans, plan medical nutrition therapy for clients with the above diseases; counsel/instruct clients on therapeutic diets, document nutrition care activities; abstract/critique current peer-reviewed nutrition-related literature.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the Nutrition Care Process and clinical workflow elements for nutrition screening for referral to the registered dietitian nutritionist, collection of assessment data, nutrition interventions, and monitoring strategies appropriate for the technician level of practice by:
    a. describing the nutrition care process;
    b. performing nutrition screening and identifying clients or patients to be referred to a registered dietitian nutritionist;
    c. performing specific activities of the Nutrition Care Process as assigned by registered dietitian nutritionists in various settings with various disease states including obesity, cardiovascular disease, and diabetes;
    d. collecting and evaluating nutrition assessment data: anthropometric/physical, biochemical, clinical, and dietary;
    e. distinguishing relevant laboratory and nutritional values related to disease states;
    f. identifying food and drug interactions;
    g. estimating requirements for energy, protein, and fluid;
    h. explaining the purpose and use of PES statement;
    i. reviewing problems, etiologies, signs, and symptoms for development of nutrition diagnosis statements;
    j. developing interventions to effect change and enhance wellness in diverse individuals and groups;
    k. planning nutritionally sound meals, menus and meal plans that promote health and disease management and meet client's/patient's needs;
    l. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations;
    m. implementing actions based on care plans, protocols, policies, and evidence-based practice;
    n. monitoring signs and symptoms related to nutrition diagnosis and effectiveness of nutrition care plan;
    o. documenting nutrition care process using current technology.
2. Demonstrate effective and professional oral and written communication skills sufficient for entry into technical practice by:
    a. using clear and effective oral and written communication;
    b. demonstrating active participation, teamwork, and contributions in group settings;
    c. functioning as a member of inter-professional teams during simulation;
    d. demonstrating effective interviewing and education methods for diverse individuals and groups;
    e. incorporating motivational interviewing techniques in diet instructions;
    f. showing cultural humility in interactions with colleagues, staff, clients, patients, and the public;
    g. using current information technology to develop, manage, and disseminate nutrition information and data.
3. Identify and describe the work of inter-professional teams and the roles of others with whom the nutrition and dietetics technician, registered collaborates in the delivery of food and nutrition services by:
    a. describing the governance of nutrition and dietetics practice and interprofessional relationships in various practice settings;
    b. counseling patients within the scope of practice during mock counseling sessions;
    c. adhering to current federal regulations and state statutes and rules, and the Scope of Practice for the Nutrition and Dietetics Technician, Registered;
    d. referring situations outside the nutrition and dietetics technician scope of practice or area of competence to a registered dietitian nutritionist or other professional;
    e. demonstrating ethical principles for providing nutritional care;
    f. demonstrating professional attributes in all areas of practice.
4. Demonstrate how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice by:
    a. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols;
    b. accessing data, references, patient education materials, consumer, and other information from credible sources;
    c. differentiating between scholarly versus popular journals;
    d. listing the major components of peer reviewed articles;
    e. evaluating information to determine if it is consistent with accepted scientific evidence;
    f. citing references in case study reports;
    g. applying critical thinking skills when completing case study research on various disease states using peer-reviewed literature.
5. Demonstrate knowledge and skills in nutrition care planning for weight management issues by:
    a. describing body weight in terms of classifications and different models to estimate body fat;
    b. describing obesity and obesity classifications;

c. collecting and evaluating anthropometric measurements including calculation of Body Mass Index, Ideal Body Weight, and percent weight change;
d. identifying the hazards of metabolic alteration in obesity;
e. evaluating popular diets and weight management practices;
f. summarizing factors affecting satiety, weight, and energy balance;
g. explaining lifestyle modification strategies and goals of treatment for obesity-related disorders;
h. describing surgical procedures used in weight management;
i. explaining nutrition implications of gastric bypass;
j. evaluating the use of meal replacement supplements for weight management;
k. performing activities of the Nutrition Care Process for patients with weight management issues;
l. providing recommendations and strategies to control energy intake.

6. Demonstrate knowledge and skills in nutrition care planning for Cardiovascular Disease (CVD) by:
   a. describing a normal circulatory system in the human body;
   b. describing the common diseases categorized as CVD and summarizing pathophysiologies for CVD disorders;
   c. recalling desirable lipoprotein profile;
   d. identifying CVD risk factors;
   e. describing metabolic syndrome;
   f. summarizing the implications of malnutrition with CVD disease, including possible food and drug interactions;
   g. recalling nutrients composition of the Therapeutic Lifestyle Diet;
   h. performing activities of the Nutrition Care Process for patients diagnosed with CVD;
   i. providing diet instruction on DASH diet;
   j. providing recommendations to reduce consumption of sodium, added sugar, and solid fat.
7. Demonstrate knowledge and skills in nutrition care planning for Diabetes Mellitus (DM) by:
   a. describing the group of diseases characterized by high blood glucose concentrations and the metabolic alterations and clinical manifestations of those diseases;
   b. explaining pathophysiologies for high blood sugars concentration disorders;
   c. describing the complications associated with treating the group of diseases characterized by high blood glucose concentrations;
   d. recalling diagnosis criteria for DM and prediabetes;
   e. listing types of DM medications and human insulin preparations and summarizing the effects of these medications;
   f. recalling food and drug interactions in DM;
   g. performing activities of the Nutrition Care Process for patients diagnosed with DM;
   h. providing diet instruction on carbohydrate counting;
   i. recommending strategies to improve blood glucose control and to manage periods of hypoglycemia and hyperglycemia.
8. Demonstrate knowledge and skills in nutrition care planning for pulmonary diseases or respiratory disorders by:
   a. describing common pulmonary diseases or respiratory disorders;
   b. summarizing pathophysiologies for pulmonary disorders;
   c. listing adverse effects of pulmonary disease on nutrition status;
   d. recalling nutrients recommendation for patients with COPD;
   e. summarizing nutrition management for cystic fibrosis;
   f. summarizing the implications of malnutrition with COPD disease;
   g. recognizing signs and symptoms associated with malnutrition;
   h. evaluating use of enteral nutrition support for patients with pulmonary disorders;
   i. performing activities of the Nutrition Care Process for patients diagnosed with COPD.
9. Demonstrate knowledge and skills in nutrition care planning for Human Immunodeficiency Virus (HIV) by:
   a. describing common HIV disease problems including opportunistic infections and other complications;
   b. summarizing pathophysiology for HIV disorders;
   c. citing food and drug interactions and effects on nutrient intake;
   d. assessing patients with HIV disorders;
   e. recalling WHO policies on breastfeeding by HIV-infected mothers;
   f. summarizing the implications of malnutrition with HIV disease;
   g. assessing the role of nutrition support in HIV diseases;
   h. performing activities of the Nutrition Care Process for patients diagnosed with HIV.
10. Demonstrate knowledge and skills in nutrition care planning for food allergy and food intolerance by:
    a. differentiating food allergy, sensitivities, and intolerance;
    b. describing pathophysiology of food allergy;
    c. identifying risk factors for food allergy;
    d. explaining lactose intolerance;
    e. describing food elimination diet;
    f. identifying allergen-containing foods in menu;
    g. performing activities of the Nutrition Care Process for patients diagnosed with food allergies, sensitivities or intolerance;
    h. modifying recipes and menus for individuals with peanut, milk, soy, eggs, and/or wheat allergies.
11. Demonstrate identification with the nutrition and dietetics profession through activities such as participation in professional organizations and defending a position on issues impacting the nutrition and dietetics profession by:
    a. explaining legislative and regulatory policies related to nutrition and dietetics technician level of practice;
    b. identifying health care delivery systems and policies that impact nutrition and dietetics technician practice;
    c. participating in professional and community organizations;
    d. performing self-assessment and developing goals for self-improvement throughout the program.

FDNS 1370 - Principles of Food Preparation

General

Course Key
12222

Course Rubric	Course Number	Course Title
FDNS	1370	Principles of Food Preparation
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	4

Course Classification
Technical Local Need

Description
(3-2-4) Application of food science principles to meal preparation including study of food composition, selection, cooking techniques, heat transfer, food safety, nutrition and ingredient substitution.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to evaluate food products by:
   a. describing the five senses involved in sensory evaluation;
   b. identifying the five taste stimuli;
   c. applying descriptive terminologies to evaluate appearance, taste, and texture of food;
   d. conducting a sensory evaluation using objective tests;
   e. explaining the esthetic values applied to food preparation.
2. Apply the basic food preparation techniques by:
   a. stating basic heating methods used in food preparation;
   b. demonstrating correct measuring and mixing techniques;
   c. converting commonly used measurements to metric equivalents;
   d. demonstrating the proper use of knives and production equipment;
   e. applying principles of food safety;
   f. demonstrating active participation, teamwork, and contributions in a group setting;
   g. functioning as a member of inter-professional teams by working with students of various background;
   h. promoting team involvement and value the skills of each member;
   i. applying safety and sanitation principles related to food, personnel, and customers.
3. Demonstrate understanding of food composition and chemical reactions in food by:
   a. identifying macronutrients in food;
   b. describing the functions of water in food preparation;
   c. comparing acid and base characteristics of food;
   d. demonstrating the proper use of a pH chart;
   e. explaining the properties of a colloidal system and differentiating between a solution and an emulsion;
   f. summarizing the role of food additives and various bakery ingredients used in food preparation;
   g. discussing use of functional and engineered foods in a healthful diet.
4. Demonstrate knowledge of physical and chemical properties for the following food groups: milk and dairy; eggs; meat, poultry and fish; vegetables and fruit; cereal and grains; yeast and quick breads; and fats and oils by:
   a. describing the physical composition;
   b. outlining the standards of food selection;
   c. explaining US government criteria in product classification;
   d. identifying factors influencing food quality;
   e. comparing methods of preparation and effects on nutrients' retention;
   f. discussing changes in properties during food preparation;
   g. incorporating healthy eating principles in food selection and preparation;
   h. participating in advocacy on local, state, or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession.
5. Demonstrate basic understanding of food preservation by:
   a. listing food preservation techniques;
   b. outlining biological, chemical, and physical changes that lead to spoilage;
   c. describing basic microorganism function in food;
   d. explaining the relationship between food preservation and sustainability;
   e. proposing and using procedures as appropriate to the practice setting to promote sustainability, reduce waste, and protect

the environment.

6. Demonstrate an understanding of cultural competence/sensitivity by:
    a. selecting appropriate cultural foods for specified ethnic groups;
    b. applying critical thinking skills to substitute ingredients in recipes and menus to meet selected dietary restrictions;
    c. modifying food textures and thickening consistency of beverages;
    d. applying critical thinking skills;
    e. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups, and individuals.

7. Demonstrate effective and professional oral and written communication skills for entry into technical practice by:
    a. using clear and effective oral and written communications;
    b. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols;
    c. showing cultural humility in interactions with colleagues, staff, clients, patients, and the public;
    d. preparing and delivering sound food and nutrition presentations to target audience;
    e. defending a position on issues impacting the nutrition and dietetics profession.

FDNS 1371 - Child Nutrition and Programs

General

Course Key
10583

Course Rubric
FDNS

Course Number
1371

Course Title
Child Nutrition and Programs

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0). Study of nutritional requirements and growth assessment for children 0-18 at low or moderate risk. Review of child nutrition regulatory processes and federal child nutrition programs. Develop practical skills in meal planning and providing nutrition education for children.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe nutrition recommendations for children by:
    a. describing the MyPlate recommendations for children and adolescents;
    b. summarizing dietary guidelines and recommendations as they apply to infants, preschool children, school-aged children, and adolescents;
    c. recalling the Dietary Reference intakes for the following vitamins and minerals: iron, zinc, calcium, and vitamin D;
    d. calculating nutrient requirements including calories and protein for infants, preschool children, school-aged children, and adolescents;
    e. listing factors affecting food choices for infants, preschool children, school-aged children, and adolescents including advertising, parents, peers, and mealtime environment;
    f. providing recommendations to meet hydration needs of infants, children, and adolescents;
    g. describing types of vegetarian diets and special nutrient needs/supplementation for various groups of vegetarians.

2. Demonstrate knowledge and skills to address nutrition concerns of children by:
    a. identifying foods that present a choking hazard in preschool children;
    b. providing recommendations to reduce food refusal by preschoolers;
    c. recommending strategies to decrease risk of dental caries;
    d. calculating BMI and plotting BMI on CDC Growth chart;
    e. identifying children who are overweight or at risk for obesity and factors contributing to obesity;
    f. describing health risks associated with obesity;
    g. applying critical thinking skills;
    h. providing strategies to reduce risk of obesity in children.

3. Demonstrate knowledge and skills to develop menu for the target populations by:
    a. developing menu according to menu planning principles and dietary guidelines;
    b. providing healthy alternative choices for meals and snack items;
    c. modifying regular menus to meet the needs of vegetarians;
    d. incorporating culturally appropriate food items in menu development;
    e. planning nutritionally sound meals, menus, and meal plans that promote health and disease management and meet client's/patient's needs.

4. Demonstrate an understanding of federally funded children's meal programs by:
    a. describing the benefits of child feeding programs available nationally and globally;
    b. explaining the application and eligibility process for free and reduced-price meals;
    c. summarizing the regulations and legislation pertaining to counting and claiming of meals, procurement, financial issues, ethics, reimbursement, the review process, and special diet provisions for the Child Nutrition Programs;
    d. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups and individuals;
    e. recalling current USDA meal patterns and nutrition standards for the National School Lunch and Breakfast programs including food components, calorie, saturated fat, calorie ranges, and sodium requirements;
    f. developing a menu according to current USDA meal patterns and nutrition standards for National School Lunch Program;
    g. evaluating the use of commodity foods within the child nutrition program;
    h. comparing the advantages and disadvantages of using pre-prepared meals;
    i. identifying sanitation and food handling procedures that minimize foodborne illness;
    j. proposing procedures as appropriate to the practice setting to promote sustainability, reduce waste, and protect the environment;
    k. describing the regulations behind accommodating students with special needs through menu substitutions, including life-threatening allergies and non-life-threatening diagnoses such as lactose or gluten intolerance;
    l. Selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols and to develop, manage, and disseminate information and data.

5. Prepare and deliver sound food and nutrition presentations to children by:
    a. describing the learning needs of children and teenagers;
    b. developing lesson plans;
    c. utilizing strategies to improve learning experience of children;
    d. using clear and effective oral and written communication;
    e. providing nutrition and lifestyle education to well populations by developing an educational nutrition session for a target population (preschool, school-aged children, pre-adolescence or adolescents);
    f. developing nutrition education materials for disease prevention and health improvement that are culturally and age appropriate and designed for the literacy level of the audience;
    g. accessing data, education materials for children and parents, consumer, and other information from credible sources;
    h. demonstrating effective, clear, and professional oral and written communication skills when preparing and presenting mock nutrition education lesson;
    i. presenting an educational session to a target population (preschool, school-aged children, pre-adolescence or adolescents);
    j. promoting team involvement and values the skills of each member;
    k. demonstrating active participation, teamwork, and contributions in group settings.

FDNS 1447 - Medical Nutrition Therapy III

General

Course Key
16523

Course Rubric	Course Number	Course Title
FDNS	1447	Medical Nutrition Therapy III

Semester Credit Hours	Lecture Hours	Lab Hours
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0). Advanced principles and techniques of nutrition care for clients/patients at low to moderate risk. Includes a study of the scientific basis of diets for individuals with cancer, gastrointestinal disease, and renal disease. Also includes nutrition assessment parameters, nutrition care planning and evaluation, and menu editing methods. Includes a nutrition risk screening, interviewing/counseling methods, diet evaluation, basic diet calculations, and documentations. A grade of "B" or better is required to petition for FDNS 2169 Practicum-Clinical. Required Prerequisite: FDNS-1346 with a minimum grade of "C" Recommended Prerequisite/Corequisite: BIOL-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): FDNS-1346 with a minimum grade of "C"

Recommended Prerequisite/Corequisite: BIOL-2401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Recall pathology terms, describe pathology and medical/pharmacological treatment of cancer, alimentary tract (and accessory organs) and renal disease; evaluate client laboratory data, food/medication interactions; assess client nutritional status, special needs, analyze food intake, develop nutrition care plans, plan medical nutrition therapy for clients with the above diseases; counsel/instruct clients on therapeutic diets, document nutrition care activities; abstract/critique current peer reviewed nutrition related literature.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the Nutrition Care Process and clinical workflow elements for nutrition screening for referral to the registered dietitian nutritionist, collection of assessment data, nutrition interventions, and monitoring strategies appropriate for the technician level of practice by:
    a. performing nutrition screening and identifying clients or patients to be referred to a registered dietitian nutritionist;
    b. performing specific activities of the Nutrition Care Process as assigned by registered dietitian nutritionists for case studies of various disease states;
    c. collecting and evaluating nutrition assessment data, including anthropometric/physical, biochemical, clinical, and dietary;
    d. distinguishing relevant laboratory and nutritional values related to disease states;
    e. identifying food and drug interactions;
    f. estimating requirements for energy, protein, and fluid;
    g. explaining the purpose and use of PES statement;
    h. reviewing problems, etiologies, signs, and symptoms for development of nutrition diagnosis statements;
    i. developing interventions to effect change and enhance wellness in diverse individuals and groups;
    j. planning nutritionally sound meals, menus and meal plans that promote health and disease management and meet client's/patient's needs;
    k. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations;
    l. implementing actions based on care plans, protocols, policies, and evidence-based practice;
    m. monitoring signs and symptoms related to nutrition diagnosis and effectiveness of nutrition care plan;
    n. documenting Nutrition Care Process using current technology.
2. Demonstrate effective and professional oral and written communication skills sufficient for entry into technical practice by:
    a. using clear and effective oral and written communication;
    b. demonstrating active participation, teamwork, and contributions in group settings;
    c. functioning as a member of inter-professional teams during simulation;
    d. demonstrating effective interviewing and education methods for diverse individuals and groups;
    e. incorporating motivational interviewing techniques in diet instructions;
    f. demonstrating an understanding of cultural competence/sensitivity;
    g. showing cultural humility in interactions with colleagues, staff, clients, patients and the public;
    h. using current information technologies to develop, manage, and disseminate nutrition information and data.
3. Identify and describe the work of inter-professional teams and the roles of others with whom the nutrition and dietetics technician, registered collaborates in the delivery of food and nutrition services by:
    a. describing the governance of nutrition and dietetics practice and inter-professional relationships in various practice settings;
    b. counseling patients within the scope of practice during mock counseling sessions;
    c. adhering to current federal regulations and state statutes and rules, and the Scope of Practice for the Nutrition and Dietetics Technician, Registered;
    d. referring situations outside the nutrition and dietetics technician scope of practice or area of competence to a registered dietitian nutritionist or other professional;
    e. demonstrating ethical principles for providing nutritional care;
    f. demonstrating professional attributes in all areas of practice.
4. Demonstrate how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice by:
    a. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols;
    b. accessing data, references, patient education materials, consumer, and other information from credible sources;
    c. differentiating scholarly versus popular journals;
    d. listing the major components of peer-reviewed articles;
    e. evaluating information to determine if it is consistent with accepted scientific evidence;
    f. citing references in case study reports;
    g. applying critical thinking skills when completing case study research on various disease states using peer-reviewed literature.
5. Demonstrate knowledge and skills in nutrition care planning for upper gastrointestinal tract disorders by:
    a. describing the normal anatomy and physiology of the oral cavity and upper GI tract;
    b. describing common upper GI disorders and nutritional care guidelines;

c. summarizing the implications of upper GI surgeries;
d. evaluating the use of enteral nutrition support for upper GI disorders;
e. performing activities of the Nutrition Care Process for patients with upper GI disorders.

6. Demonstrate knowledge and skills in nutrition care planning for lower gastrointestinal tract disorders by:
   a. describing the normal anatomy and physiology of the lower GI tract;
   b. describing common disorders of the lower GI tract;
   c. recalling etiologies and pathophysiologies for lower GI disorders;
   d. identifying gluten-containing and gluten free foods;
   e. planning gluten free diets;
   f. differentiating ulcerative colitis and Crohn's disease;
   g. summarizing nutrition recommendations for IBD, IBS, and diverticular disease;
   h. summarizing the implications of intestinal surgeries;
   i. evaluating the use of enteral nutrition support for lower GI disorders;
   j. performing activities of the Nutrition Care Process for patients diagnosed with lower GI disorders.
7. Demonstrate knowledge and skills in nutrition care planning for liver, biliary, and exocrine pancreas disorders by:
   a. describing the common diseases of the liver, biliary and exocrine pancreas;
   b. describing the physiology and functions of the hepatic system;
   c. identifying common laboratory tests used to test for liver function;
   d. differentiating the different types of hepatitis;
   e. differentiating acute and chronic pancreatitis;
   f. explaining the development and nutrition management of Wilson's disease;
   g. explaining the relationship between alcohol and malnutrition;
   h. summarizing the stages of alcoholic liver disease;
   i. calculating energy and protein requirements for end-stage liver disease;
   j. evaluating use of enteral nutrition support for patients with malnutrition;
   k. performing activities of the Nutrition Care Process for patients diagnosed with liver disease.
8. Demonstrate knowledge and skills in nutrition care planning for renal disorders by:
   a. describing the normal anatomy and physiology of the kidney;
   b. describing pathophysiologies of nephritic syndrome, nephrotic syndrome, acute renal failure, chronic renal failure, and kidney stones;
   c. recalling GFR values for various stages of chronic kidney disease (CKD);
   d. calculating energy and protein requirements for various stages of CKD;
   e. contrasting hemodialysis and peritoneal dialysis;
   f. assessing laboratory values pertinent to renal disorders;
   g. evaluating food and drug interactions;
   h. summarizing the implications of malnutrition with renal disease;
   i. evaluating use of enteral nutrition support for renal disease;
   j. summarizing nutrition management for renal disorders;
   k. performing activities of the Nutrition Care Process for patients diagnosed with renal disease.
9. Demonstrate knowledge and skills in nutrition care planning for cancer prevention, treatment, and recovery by:
   a. listing risk factors related to cancer development;
   b. describing the nutrition implications of cancer and its treatment;
   c. calculating estimated energy needs of cancer patients;
   d. summarizing nutrition management for cancer;
   e. evaluating the use of enteral nutrition support for cancer patients;
   f. evaluating the effectiveness of complementary therapies in cancer patients;
   g. performing activities of the Nutrition Care Process for patients diagnosed with cancer.
10. Demonstrate knowledge and skills in nutrition care planning in critical care situations by:
    a. summarizing metabolic response to stress - ebb and flow phase;
    b. describing common critical care problems including sepsis, burns, and trauma;
    c. describing pathophysiology of inflammatory response syndrome;
    d. calculating energy and protein requirements during critical care;
    e. evaluating the use of enteral nutrition support for critical care patients;
    f. performing activities of the Nutrition Care Process for patients in critical care.
11. Demonstrate knowledge and skills in nutrition care planning for metabolic disorders by:
    a. listing common metabolic disorders;
    b. explaining the pathophysiologies of phenylketonuria, galactosemia, and maple syrup urine disease;
    c. summarizing medical nutrition therapy for children and adults with PKU;
    d. researching evidence-based practice for metabolic disorders;
    e. performing activities of the Nutrition Care Process for patients diagnosed with metabolic disorders.
12. Demonstrate knowledge and skills in nutrition care planning for neurological disorders by:
    a. listing common neurological diseases and problems;
    b. summarizing the eating and swallowing process;
    c. explaining the implications of neurological diseases on food intake;
    d. summarizing the feeding guidelines for dysphagic patients;
    e. identifying consistency of liquid;
    f. modifying diet for dysphagic patients;
    g. identifying the roles of interdisciplinary team members in nutrition management of neurological patients;
    h. evaluating use of enteral nutrition support in patients with neurological disorders;
    i. performing activities of the Nutrition Care Process for patients diagnosed with neurological disease.
13. Defend a position on issues impacting the nutrition and dietetics profession by:
    a. explaining legislative and regulatory policies related to nutrition and dietetics technician level of practice;
    b. identifying healthcare delivery systems and policies that impact nutrition and dietetics technician practice;
    c. summarizing the roles of The Joint Commission (TJC) and recommendations from TJC on nutrition care;
    d. participating in professional and community organizations;
    e. performing self-assessment and developing goals for self-improvement throughout the program.

FDNS 2168 - Practicum-Community Nutrition/Wellness

General

Course Key
16524

Course Rubric	Course Number	Course Title
FDNS	2168	Practicum-Community Nutrition/Wellness
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
1	0	10

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-10) Practical general workplace training supported by an individualized learning plan developed by the employer, college, and student. The plan relates the workplace training and experiences to the student's general and technical course of study. Participation in nutrition intervention including program planning, nutrition education and promotion, and program evaluation to targeted risk group populations in the community. Note: A granted petition is required for registration. See program director for additional practicum requirements. Required Prerequisites: FDNS-1309 with a grade of "B" or better; FDNS-1103, HECO-1322, DITA-1300, DITA-1301 with a grade of "C" or better; FDNS-1371 or FDNS-1341 with a grade of "C" or better

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): FDNS-1309 with a grade of "B" or better; FDNS-1103, HECO-1322, DITA-1300, DITA-1301 with a grade of "C" or better; FDNS-1371 or FDNS-1341 with a grade of "C" or better

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Demonstrate how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice by:
   a. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols;
   b. accessing data, references, patient education materials, consumer, and other information from credible sources;
   c. evaluating information to determine if it is consistent with accepted scientific evidence;
   d. applying critical thinking skills and evaluating effectiveness of nutrition intervention.
2. Demonstrate effective and professional oral and written communication skills sufficient for entry into technical practice by:
   a. demonstrating effective interviewing and education methods for diverse individuals and groups;
   b. using clear and effective oral and written communication;
   c. preparing and delivering sound food and nutrition presentations to a target audience;
   d. developing nutrition education materials for disease prevention and health improvement that are culturally and age appropriate and designed for the literacy level of the audience;
   e. presenting an educational session to a target population.
3. Use Nutrition Care Process for nutrition screening for referral to the registered dietitian nutritionist, collection of assessment data, nutrition interventions and monitoring strategies appropriate for the technician level of practice by:
   a. performing nutrition screening and collecting anthropometric and dietary data;
   b. evaluating nutritional needs of client;
   c. providing nutrition education and diet instruction to low and moderate risk clients;
   d. developing a three-day menu for a client considering cultural diversity and nutritional needs;
   e. referring clients to registered dietitian and/or community programs based on individual needs and eligibility.
4. Developing interventions to effect change and enhance wellness in diverse individuals and groups by:
   a. performing specific activities of the Nutrition Care Process as assigned by registered dietitian nutritionists in accordance with the Scope of Practice for the Nutrition and Dietetics Technician, Registered;
   b. planning nutritionally sound meals, menus and meal plans that promote health and disease management and meet client's/patient's needs;
   c. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations;
   d. developing an educational session for a target population;
   e. providing nutrition and lifestyle education to well populations;
   f. promoting health improvement, food safety, wellness, and disease prevention for the general population;
   g. assisting with marketing clinical and customer services.
5. Demonstrate active participation, teamwork, and contributions in group settings by:
   a. identifying and describing the work of inter-professional teams and the roles of others with whom the nutrition and dietetics technician, registered collaborates in the delivery of food and nutrition services;
   b. demonstrating professional attributes in all areas of practice;
   c. functioning as a member of inter-professional teams to promote nutrition and health;
   d. promoting team involvement and value the skills of each member.
6. Demonstrate cultural humility, awareness of personal biases and an understanding of cultural differences as they contribute to diversity, equity and inclusion by:
   a. summarizing cultural-related practices within the community;
   b. showing cultural humility in interactions with colleagues, staff, clients, patients, and the public;
   c. developing culturally appropriate nutrition resources.
7. Explain legislative and regulatory policies related to nutrition and dietetics technician level of practice by:
   a. participating in advocacy on local, state, or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession;
   b. explaining current nutrition-related legislation;
   c. describing contributing factors to health inequity in nutrition and dietetics including structural bias, social inequities, health disparities and discrimination;
   d. advocating on local, state, or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession;
   e. defending a position on issues impacting the nutrition and dietetics profession.
8. Demonstrate identification with the nutrition and dietetics profession through activities such as participation in professional organizations and defending a position on issues impacting the nutrition and dietetics profession by:
   a. participating in nutrition and dietetics professional organizations and explain the significant role of the organization;

b. actively contributing to nutrition and dietetics professional and community organizations;

c. demonstrating an understanding of the importance and expectations of a professional in mentoring and precepting others;

d. mentoring others;

e. identifying and articulating the value of precepting.

9. Describe the governance of nutrition and dietetics practice, such as the Scope of Practice for the Nutrition and Dietetics Technician, Registered and the Code of Ethics for the Profession of Nutrition and Dietetics by:

a. following the procedures and regulations as established by TCC and practicum sites;

b. adhering to current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Practice for the Nutrition and Dietetics Technician, Registered, Standards of Practice, Standards of Professional Performance, and Code of Ethics for the Profession of Nutrition and Dietetics;

c. maintaining client confidentiality.

FDNS 2169 - Practicum - Clinical Dietetics

General

Course Key
16525

Course Rubric	Course Number	Course Title
FDNS	2169	Practicum-Clinical Dietetics

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	10

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-10) Practical, general workplace training supported by individualized learning plan developed by the employer, college, and student. The plan relates to the workplace training and experience to the student's general, clinical and technical course of study. Application of nutrition care principles and techniques in acute or long term health care institutions. A granted petition is required for registration. See program director for additional practicum requirements. This is a capstone course. Required Prerequisite: FDNS-1447 and FDNS-1346 completed within the last three years with a minimum grade of "B" earned; FNDS-1168 with a minimum grade of "C"; BIOL-2401 Recommended Corequisite: FDNS-2170

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): FDNS-1447 and FDNS-1346 completed within the last three years with a minimum grade of "B" earned; FNDS-1168 with a minimum grade of "C"; BIOL-2401

Recommended Corequisite(s): FDNS-2170

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the Nutrition Care Process and clinical workflow elements for nutrition screening for referral to the registered dietitian nutritionist, collection of assessment data, nutrition interventions and monitoring strategies appropriate for the technician level of practice by:
    a. performing nutrition risk screenings and identifying patients to be referred to a registered dietitian nutritionist;
    b. performing specific activities of the Nutrition Care Process as assigned by registered dietitian nutritionists in accordance with the Scope of Practice for the Nutrition and Dietetics Technician, Registered;
    c. collecting historical and dietary nutrition data;
    d. reviewing laboratory and food/drug interaction related to patient's disease states;
    e. evaluating and calculating data collected including anthropometric, biochemical, clinical, physical, dietary data, and psychosocial well-being;
    f. assessing nutritional needs of patient pertinent to collected information;
    g. reviewing nutrition diagnosis;
    h. implementing actions based on care plans, protocols, policies and evidence-based practice.
2. Develop nutrition intervention and monitoring strategies by:
    a. developing interventions to effect change and enhance wellness in diverse individuals and groups;
    b. providing nutrition counseling and diet instruction within scope of DTR practice;
    c. planning nutritionally sound meals, menus and meal plans that promote health and disease management and meet client's/patient's needs;
    d. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups, and individuals;
    e. developing nutrition education materials for disease prevention and health improvement that are culturally and age appropriate and designed for the educational level of the audience;
    f. referring situations outside the dietetic technician scope of practice or area of competence to a registered dietitian nutritionist or other professional;
    g. delivering nutrition services through quality improvement and customer satisfaction activities.
3. Demonstrate effective and professional oral and written communication skills sufficient for entry into technical practice by:
    a. stating effective communication techniques;
    b. using clear and effective oral and written communications;
    c. demonstrating active participation, teamwork, and contributions in group settings;
    d. demonstrating effective interviewing and education methods for diverse individuals and groups;
    e. demonstrating cultural humility in interactions with staff, clients, patients, and the public;
    f. describing the work of inter-professional teams and the roles of others with whom the dietetic technician collaborates in the delivery of food and nutrition services.
4. Describe the governance of nutrition and dietetics practice, such as the Scope of Practice for the Nutrition and Dietetics Technician, Registered and the Code of Ethics for the Profession of Nutrition and Dietetics by:
    a. adhering to current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Practice for the Nutrition and Dietetics Technician, Registered, Standards of Practice, Standards of Professional Performance, and Code of Ethics for the Profession of Nutrition and Dietetics;
    b. identifying scenarios involving ethical issues;
    c. applying ethical principles to patient nutritional care;
    d. describing contributing factors to health inequity in nutrition and dietetics including structural bias, social inequities, health disparities and discrimination;
    e. participating in quality improvement and customer satisfaction activities to improve delivery of nutrition services.
5. Demonstrate professional attributes in all areas of practice by:
    a. following the procedures and regulations as established by TCC and practicum sites;
    b. functioning actively as a member of inter-professional teams;
    c. demonstrating initiative, leadership, and flexibility;
    d. demonstrating an understanding of cultural competence/sensitivity and respect for life experiences and educational background in interpersonal relationships;
    e. adapting to change in scheduling and assignments;
    f. advocating for opportunities in the professional settings;
    g. applying critical thinking skills;
    h. maintaining client confidentiality;
    i. developing interventions to effect change and enhance wellness in diverse individuals and groups.

6. Demonstrate identification with the nutrition and dietetics profession through activities such as participation in professional organizations and defending a position on issues impacting the nutrition and dietetics profession by:
    a. participating in nutrition and dietetics professional organization and explain the significant role of the organization;
    b. actively contributing to nutrition and dietetics professional and community organizations;
    c. performing self-assessment that includes self-awareness in terms of learning and leadership styles and cultural orientation and develop goals for self-improvement;
    d. identifying and articulating one's skills, strengths, knowledge and experiences relevant to the position desired and career goals;
    e. preparing a plan for professional development according to Commission on Dietetic Registration guidelines;
    f. demonstrating an understanding of the importance and expectations of a professional in mentoring and precepting others;
    g. identifying and articulating the value of precepting.
7. Demonstrate effective use of computer information technologies by:
    a. demonstrating how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice;
    b. selecting and using appropriate current information technologies to locate and apply evidence-based guidelines and protocols;
    c. using current information technologies to develop, manage, and disseminate nutrition information and data;
    d. accessing data, references, patient education materials, consumer, and other information from credible sources;
    e. evaluating information to determine if it is consistent with accepted scientific evidence.

FDNS 2170 - Seminar for Dietetics

General

Course Key
14475

Course Rubric
FDNS

Course Number
2170

Course Title
Seminar for Dietetics

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Technical Local Need

Description
(1-1-0) Preparation for the NDTR credentialing exam and employment in the field of Dietetics. Review NDTR exam study questions, test-taking strategies, Dietetics scop of practice, Code of Ethics for Dietetics professional. Required Prerequisite/Corequisite: FDNS-1447

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/co-requisite

10
A Requirement block where all subrequirements are required

 # Take FDNS-1447;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): FDNS 1447

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Evaluate individual's knowledge and competency for NDTR examination, describe requirements for registration eligibility and maintenance; explain the roles and scope of practice of DTRs, and prepare for a successful employment interview.

Upon successful completion of this course, students will:

1. Discuss requirements for obtaining and maintaining the NDTR credential by:
    a. recalling test specifications and process for the NDTR credentialing examination;
    b. identifying resources for preparing for the NDTR credentialing examination;
    c. outlining the verification requirements for the DTR credentialing exam;
    d. stating the requirements for maintenance of the credential;
    e. listing resources for continuing professional development for maintaining registration status.
2. Describe the governance of nutrition and dietetics practice, such as the Scope for the Nutrition and Dietetics Technician, Registered and the Code of Ethics for the Profession of Nutrition and Dietetics by:
    a. discussing the roles and responsibilities of DTRs and inter-professional relationships in clinical, community, and dietary management;
    b. identifying situations outside of the DTR's Scope of Practice that necessitate referrals to Registered Dietitians or other professionals;
    c. demonstrating identification with the nutrition and dietetics profession through participation in dietetics professional organization meetings or events;
    d. using clear and effective oral and written communication;
    e. discussing ethical issues faced by dietetics professionals and appropriate courses of actions;
    f. adhering to current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Practice for the Nutrition and Dietetics Technician, Registered, Standards of Practice, Standards of Professional Performance, and Code of Ethics for the Profession of Nutrition and Dietetics.
3. Demonstrate knowledge to sit for the NDTR credentialing examination by:
    a. reviewing the following topics within the domain of nutrition science and care for individuals and groups:
        1. Principles of basic and normal nutrition
        2. Nutrition screening and assessment for individuals and populations
        3. Nutrition for health promotion and disease prevention
        4. Planning and implementing medical nutrition therapy for individuals
        5. Dietary guidelines and nutrition programs in community
        6. Planning of nutrition education and training
        7. Monitoring and evaluation for outcomes individuals and nutrition programs
    b. reviewing the following topics within the domain of Food Science and Food Service:
        1. Menu Development
        2. Procurement and Supply Management
        3. Food Production, Distribution, and Service

4. Sanitation, Safety, Facility and Equipment

c. reviewing the following topics within the domain of Management of Food and Nutrition Service:

1. Human Resources
2. Finance and Materials
3. Marketing Products and Services
4. Management Principles and Functions
5. Quality Management, Regulatory Compliance, and Research

4. Prepare for an employment interview by:

a. identifying characteristics of a successful candidate for employment;
b. developing a written cover letter and resume for a potential employer of DTRs;
c. using current information technologies to develop, manage, and disseminate nutrition information and data;
d. creating an employment portfolio;
e. identifying potential employment opportunities in dietetics;
f. demonstrating effective and professional oral and written communication skills sufficient for entry into technical practice by participating in a job mock interview;
g. advocating for opportunities in the professional settings (such as asking for additional responsibility, practicing negotiating a salary or wage or asking for a promotion).

5. Demonstrate skills, strengths, knowledge and experience relevant to leadership potential and professional growth for the nutrition and dietetics practitioner by:

a. performing self-assessment that includes self-awareness in terms of learning and leadership styles and cultural orientation and develop goals for self-improvement;
b. identifying and articulating one's skills, strengths, knowledge and experiences relevant to the position desired and career goals;
c. functioning as a member of interprofessional teams;
d. practicing how to self-advocate for opportunities in a variety of settings (such as asking for support, presenting an elevator pitch).

FDNS 2300 - Food Management Systems

General

Course Key
16526

Course Rubric	Course Number	Course Title
FDNS	2300	Food Management Systems

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Aspects of the organization and management of institutional food service systems. Includes menu planning and evaluation, purchasing, receiving and storage of food supplies, inventory control, sanitation and safety, and quality assurance. Required Prerequisite(s): DITA-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): DITA-1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe organizational structure, flow of authority, employee scheduling in dietetic facilities; recall/convert units of measure; and identify can sizes. Classify and describe various food production systems; classify food service systems; and define portion control. Identify institutional serving and measuring utensils; describe/analyze/write menus; and outline U.S. food distribution systems and governmental regulations. Outline food procurement and storage systems; outline inventory systems; and describe HACCP and safety regulations. Recall disaster planning principles; describe continuous quality improvement principles; and identify food quality characteristics and measures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Evaluate foodservice operation by:
   a. identifying various types of foodservice operations in the foodservice industry;
   b. identifying factors that affect the operation of the foodservice;
   c. analyzing foodservice operations using the foodservice systems model.
2. Plan a static or cycle menu for a healthcare facility by:
   a. explaining the roles of menu in foodservice operation;
   b. discussing pros and cons of static, cycle, and single-use menus;
   c. summarizing factors affecting menu planning;
   d. selecting culturally appropriate food items for menu planning;
   e. modifying menus and recipes for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups, and individuals;
   f. utilizing current technology in menu planning.
3. Evaluate food production flow and kitchen design by:
   a. discussing types of foodservice: conventional, ready prepared, commissary, and assembly serve;
   b. designing a kitchen to improve food production flow;
   c. proposing procedures as appropriate to the practice setting to promote sustainability, reduce waste and protect the environment.
4. Discuss factors associated with control of inventory and food cost by:
   a. summarizing inventory management practice, including par stock, physical and perpetual;
   b. writing a purchasing specification;
   c. outlining the bidding process;
   d. estimating inventory values using inventory valuation methods;
   e. improving receiving and storage process in foodservice facilities.
5. Follow HACCP and safety guidelines for a foodservice operation by:
   a. describing HACCP and safety regulations;
   b. identifying critical control points in food production, receiving, and storage;
   c. applying safety and sanitation principles related to food, personnel, and consumers;
   d. developing a HACCP protocol for a specific food product;
   e. resolving issues related to food safety and sanitation.
6. Demonstrate knowledge in food production management by:
   a. reviewing production schedule, ingredients control, and recipe standardization;
   b. describing the processes involved in delivering quality food and nutrition services;
   c. delivering nutrition services through quality improvement and customer satisfaction activities;
   d. identifying sizes and volume of serving utensils;
   e. calculating estimated number of servings based on sizes of serving utensils;
   f. adjusting quantity using factoring and percentage methods;
   g. calculating As Purchased (AP) and Edible Portion (EP) for food production;
   h. forecasting production needs using forecasting methods.
7. Participate in quality improvement and customer satisfaction activities to improve delivery of nutrition services by:
   a. reviewing policies and guidelines established by regulatory agencies;
   b. identifying health care delivery systems and policies that impact nutrition and dietetics technician practice;
   c. discussing policies for quality standards established by regulatory agencies (State, Joint Commission, and Children's Medical Services);
   d. differentiating quality assurance versus process improvement;
   e. selecting appropriate tools for process improvement;
   f. identifying characteristics and measures of food quality;
   g. conducting a customer satisfaction survey;
   h. discussing preparation for disasters.
8. Assist with marketing clinical and customer services by:
   a. reviewing components of the marketing mix;
   b. identifying target market using market segmentation;
   c. selecting tools for conducting market research;
   d. discussing branding concept and niche marketing;

e. applying critical thinking skills to evaluate market needs;
f. accessing data, references, consumer, and other information from credible sources to evaluate target population;
g. developing a marketing plan and strategies.

9. Perform management and leadership roles by:
   a. describing the roles and functions of management;
   b. reviewing organization structure;
   c. comparing theories of motivation;
   d. identifying characteristics of effective leaders;
   e. reviewing decision-making techniques;
   f. providing strategies to improve communication at workplace;
   g. demonstrating active participation, teamwork, and contributions in group settings;
   h. performing supervisory functions for purchasing, production, and service of food that meets nutrition guidelines, cost parameters, and health needs.
10. Participate in the human resource management process, including employee recruitment, scheduling, training, evaluation, and retention by:
   a. reviewing the employment process, including recruiting, selection, orientation, training, and performance appraisal;
   b. defining management functions of human resources;
   c. explaining legislative and regulatory policies related to human resource management and labor unions;
   d. conducting a personnel need analysis of a foodservice operation;
   e. using clear and effective oral and written communication;
   f. writing a job description for hiring of a new employee;
   g. developing hiring interview questions;
   h. participating in a mock hiring interview of employees;
   i. preparing employee work schedule;
   j. performing supervisory, education, and training functions;
   k. identifying areas for training and professional development for employees;
   l. practicing resolving differences or dealing with conflict, as appropriate. providing strategies for conflict resolution;
   m. discussing strategies to retain employees;
   n. advocating for opportunities in the professional settings (such as asking for additional responsibility, practicing negotiating a salary or wage or asking for a promotion);
   o. promoting team involvement and values the skills of each member.
11. Evaluate and analyze financial data by:
   a. explaining budgeting principles and techniques;
   b. differentiating types of budgets;
   c. calculating labor hours and FTE;
   d. calculating productivity using productivity measures, including meals/labor hour, minutes/meal, labor cost/meal, etc.;
   e. examining basic accounting principles such as revenue, indirect costs, profit, and profit margin;
   f. evaluating information presented in balance sheets and income statements;
   g. calculating cost of goods sold;
   h. calculating and comparing financial data using ratio analysis, e.g. inventory turnover, food and labor cost percentages, minutes per meal, meals per labor hours, etc.;
   i. comparing pricing methods in pricing of menu items;
   j. collecting performance improvement, financial, productivity, or outcomes data and comparing it to established criteria;
   k. utilizing information technology to develop, store, and retrieve financial data;
   l. assisting developing a budget spreadsheet for a foodservice operation;
   m. presenting the budget for the new service to administration;
   n. implementing and adhering to budgets.

FDST 2333 - Wine Types & Sensory Evaluation

General

Course Key
12915

Course Rubric
FDST

Course Number
2333

Course Title
Wine Types and Sensory Evaluation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)A study of the major types of wines including factors that affect quality with on the development of sensory evaluation techniques. Required Prerequisite: RSTO-1319

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE RSTO-1319;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RSTO 1319

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the major wine types; explain the factors that affect wine quality; and demonstrate the sensory techniques used to evaluate wine.

Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of the Wine and Food Pyramid: A Hierarchy of Taste.
2. Demonstrate knowledge and understanding of the effect of environment and culture on texture and flavors of food and wine.
3. Analyze the impact of sweetness and acidity levels in wine and food.
4. Develop a working knowledge of wine texture characteristics, including tannin, oak, and body.
5. Demonstrate knowledge and understanding of menu planning both from horizontal and vertical pairing decisions.
6. Understand the importance of the customer service experience, including product, service, and training issues.

FDST 2335 - Wine Growing Regions of The Wo

General

Course Key
12988

Course Rubric
FDST

Course Number
2335

Course Title
Wine Growing Regions of the World

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of the major wine growing regions of the world including their history and diversity, viticultural and enological practices and procedures, wine types, and the sensory evaluation of their productions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the major wine growing regions and the wines produced throughout the world; compare the viticultural and enological practices of the major wine growing regions of the world; conduct a critical analysis of wines produced in different parts of the world with emphasis on the relationship between sensory properties of the wines and factors associated with their place of origin; create a plan to evaluate the wines, the viticultural practices, and the enological practices of wine production in five of the major wine growing regions of the world; and describe and compare the types of soil, their geology, and their structure from the major wine regions of the world.

Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of the current issues and trends in the wine industry, including wines from the United States, Europe, Italy, Asia, and France.
2. Analyze the fundamentals of growing grapes, grape types, making wine, and tasting wine.
3. Demonstrate knowledge and understanding of the differences between wines from varying regions of the world and compare those wines with the wines of the United States.
4. Demonstrate and evaluate the pairing of wine with unique food items.
5. Demonstrate knowledge and understanding of the art of wine service and wine lists.
6. Evaluate and understand how purchasing and storage of wine relates to wine service.

FIRS 1301 - Firefighter Certification I

General

Course Key
460

Course Rubric
FIRS

Course Number
1301

Course Title
Firefighter Certification I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION (TCFP). Required Corequisites: FIRS-1313, FIRS-1319, FIRS-1323, FIRS-1329 and FIRT-1338.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required concurrent courses.

10
A Requirement block where all subrequirements are required

Take FIRS-1323, FIRS-1329, FIRT-1338, FIRS-1319 and FIRS-1313
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): FIRS 1313, FIRS 1319, FIRS 1323, FIRS 1329 and FIRT 1338

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate competencies for subjects taught set forth in the TCFP curriculum for Basic Fire Suppression.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the correct laws and rules applicable to Basic Firefighter certification by the Texas Commission on Fire Protection by:
    a. identifying the requirements for certification as a Basic Firefighter as stated in the Standards Manual for Fire Protection Personnel;
    b. identifying the various levels of firefighter certification as stated in the Standards Manual for Fire Protection Personnel;
    c. identifying the various levels of instructor certification as stated in the Standards Manual for Fire Protection Personnel.
2. Demonstrate an understanding of all the aspects of firefighter safety by:
    a. describing the elements of personnel accountability systems and the application of systems at an incident;
    b. describing techniques for action when trapped or disoriented in a fire situation or in a hostile situation;
    c. demonstrating techniques for action when trapped or disoriented in a fire situation or in a hostile situation;
    d. describing safety precautions and the use of safety equipment provided for protection while riding on apparatus;
    e. identifying safety procedures for ensuring a safe station facility environment.
3. Demonstrate an understanding of the process of combustion and of key terms associated with fire science by:
    a. explaining fire theory;
    b. explaining heat energy sources;
    c. explaining the stages of fire and the appropriate action to be taken for extinguishment;
    d. explaining fire extinguishment theory.
4. Demonstrate an understanding of all aspects of personal protective equipment by:
    a. explaining the NFPA standards applicable to personal protective equipment;
    b. demonstrating the correct procedures for inspection and maintenance of personal protective equipment.
5. Demonstrate an understanding of the use of the self-contained breathing apparatus by:
    a. explaining the NFPA standards applicable to self-contained breathing apparatus;
    b. describing different types of self-contained breathing apparatus;
    c. demonstrating the various methods of donning and doffing the self-contained breathing apparatus;
    d. demonstrating inspection, care, and testing of the self-contained breathing apparatus.
6. Demonstrate an understanding of the importance of reports and records as they relate to fire service by:
    a. identifying fire incident reporting systems;
    b. completing a basic fire incident report.

FIRS 1313 - Firefighter Certification III

General

Course Key
463

Course Rubric
FIRS

Course Number
1313

Course Title
Firefighter Certification III

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION (TCFP). Required Corequisites: FIRS-1301, FIRS-1319, FIRS-1323, FIRS-1329 and FIRT-1338.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required concurrent courses.

10
A Requirement block where all subrequirements are required

Take FIRS-1301, FIRT-1338, FIRS-1319, FIRS-1323 and FIRS-1329
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): FIRS 1301, FIRS 1319, FIRS 1323, FIRS 1329 and FIRT 1338

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate competencies for subjects taught set forth in the TCFP curriculum for Basic Fire Suppression.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of all aspects of fire apparatus, pump operations, and fire streams by:
    a. demonstrating ability to drive fire apparatus;
    b. demonstrating daily maintenance of fire apparatus;
    c. identifying terms relating to the principles of fire service hydraulics;
    d. identifying various types of nozzles and their components.

FIRS 1319 - Firefighter Certification IV

General

Course Key
466

Course Rubric
FIRS

Course Number
1319

Course Title
Firefighter Certification IV

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). One in a series of courses in basic preparation for a new firefighter. Should be taken n conjunction with Firefighter Certification I, III, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PREVENTION (TCFP). Required Corequisites: FIRS-1301, FIRS-1313, FIRS-1323, FIRS-1329 and FIRT-1338.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required concurrent courses.

10
A Requirement block where all subrequirements are required

Take FIRS-1301, FIRT-1338, FIRS-1313, FIRS-1329 and FIRS-1323
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): FIRS 1301, FIRS 1313, FIRS 1323, FIRS 1329 and FIRT 1338

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate competencies, for subjects taught, set forth in the TCFP curriculum for Basic Fire Suppression.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of equipment, tactics, and procedures associated with forcible entry by:
    a. demonstrating appropriate use of forcible tools;
    b. describing the methods and procedures for properly cleaning, maintaining, and inspecting forcible entry tools;
    c. identifying materials and construction features;
    d. describing the dangers associated with forcible entry for doors, locks, glass, fences, windows, floors, and walls and, if required, simulating forcible entry with each.
2. Demonstrate an understanding of equipment, tactics, and procedures associated with ventilation by:
    a. describing the principles, advantages, and effects of proper ventilation;
    b. describing the considerations affecting the decision to ventilate;
    c. demonstrating the various methods of ventilation.
3. Demonstrate an understanding of equipment, tactics, and procedures associated with salvage by:
    a. explaining the purpose of salvage and its value to the fire department and to public relations;
    b. demonstrating various salvage procedures as an individual or team member;
    c. demonstrating the procedures of inspection, cleaning, and maintaining salvage equipment.
4. Demonstrate an understanding of equipment, tactics, and procedures associated with overhaul by:
    a. explaining the value of proper overhaul;
    b. explaining the safety precautions necessary during overhaul;
    c. demonstrating various overhaul procedures as an individual or team member.

FIRS 1323 - Firefighter Certification V

General

Course Key
469

Course Rubric	Course Number	Course Title
FIRS	1323	Firefighter Certification V

Semester Credit Hours	Lecture Hours	Lab Hours
3	1	5

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-5). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION (TCFP). Required Corequisites: FIRS-1301, FIRS-1313, FIRS-1319, FIRS-1329 and FIRT-1338.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required concurrent courses.

10
A Requirement block where all subrequirements are required

Take FIRS-1301, FIRT-1338, FIRS-1313, FIRS-1319 and FIRS-1329
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): FIRS 1301, FIRS 1313, FIRS 1319, FIRS 1329 and FIRT 1338

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate competencies for subjects taught set forth in the TCFP curriculum for Basic Fire Suppression.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of equipment, tactics, and procedures associated with ropes and knots by:
    a. demonstrating terms used when tying a knot and describing their uses;
    b. explaining the uses of and tying knots with safety, given proper size and length of rope;
    c. selecting the appropriate knot, given a task;
    d. demonstrating the procedures for the inspection, maintenance, and storage of ropes.
2. Demonstrate an understanding of equipment, tactics, and procedures associated with rescue by:
    a. demonstrating the proper techniques of searching for victims;
    b. demonstrating the proper techniques for removing injured persons from hazardous environments.
3. Demonstrate an understanding of equipment, tactics, and procedures associated with hazardous materials by:
    a. explaining purpose, goals, and definitions of the NFPA standards applicable to hazardous materials;
    b. explaining safety principles applicable to hazardous materials response at the awareness level;
    c. identifying principles pertaining to the recognition of hazardous materials;
    d. explaining principles of classification, identification, and verification of hazardous materials.

FIRS 1329 - Firefighter Certification VI

General

Course Key
517

Course Rubric	Course Number	Course Title
FIRS	1329	Firefighter Certification VI

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, and V to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION (TCFP). Required Corequisites: FIRS-1301, FIRS-1313, FIRS-1319, FIRS 1323 and FIRT-1338.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required concurrent courses.

10
A Requirement block where all subrequirements are required

Take FIRT-1338, FIRS-1301, FIRS-1313, FIRS-1319 and FIRS-1323
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): FIRS 1301, FIRS 1313, FIRS 1319, FIRS 1323 and FIRT 1338

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate competencies for subjects taught set forth in the TCFP curriculum for Basic Fire Suppression. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the procedures pertaining to fire cause determination by
    a. determining point of origin (1a, 1b, 2a, 2b, 2c);
    b. describing events of fire cause (1a, 1b, 2a, 2b, 2c);
    c. explaining factors indicating arson (1a, 1b, 2a, 2b, 2c);
    d. describing the protection of evidence (1a, 1b, 2a, 2b, 2c);
    e. explaining the importance of securing the scene (1a, 1b, 2a, 2b, 2c).
2. Demonstrate an understanding of pre-incident planning by
    a. describing all the components of pre-incident planning (1a, 1b, 2a, 2b, 2c);
    b. performing a facility survey (1a, 1b, 2a, 2b, 2c).
3. Demonstrate an understanding of wild land fire suppression by
    a. explaining terminology associated with wild land fires (1a, 1b, 2a, 2b, 2c);
    b. explaining methods used in locating and sizing up wild land fires (1a, 1b, 2a, 2b, 2c);
    c. explaining suppression techniques and safety procedures (1a, 1b, 2a, 2b, 2c).
4. Demonstrate an understanding of fire protection systems by
    a. describing the purpose of the National Fire Protection Association (NFPA) 13 (1a, 1b, 2a, 2b, 2c);
    b. explaining the purpose of NFPA 101, life safety code, applicable to fire prevention inspections (1a, 1b, 2a, 2b, 2c).
5. Demonstrate an understanding of public transportation by
    a. describing recommended procedures using apparatus, equipment, and resources available as they apply to the modes of public transportation (1a, 1b, 2a, 2b, 2c).

FIRT 1301 - Fundamentals of Fire Protection

General

Course Key
531

Course Rubric
FIRT

Course Number
1301

Course Title
Fundamentals of Fire Protection

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Orientation to the fire service, career opportunities, and related fields. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate competencies for subjects taught set forth in the TCFP curriculum for Basic Fire Suppression. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the procedures pertaining to fire cause determination by
    a. determining point of origin (1a, 1b, 2a, 2b, 2c);
    b. describing events of fire cause (1a, 1b, 2a, 2b, 2c);
    c. explaining factors indicating arson (1a, 1b, 2a, 2b, 2c);
    d. describing the protection of evidence (1a, 1b, 2a, 2b, 2c);
    e. explaining the importance of securing the scene (1a, 1b, 2a, 2b, 2c).
2. Demonstrate an understanding of pre-incident planning by
    a. describing all the components of pre-incident planning (1a, 1b, 2a, 2b, 2c);
    b. performing a facility survey (1a, 1b, 2a, 2b, 2c).
3. Demonstrate an understanding of wild land fire suppression by
    a. explaining terminology associated with wild land fires (1a, 1b, 2a, 2b, 2c);
    b. explaining methods used in locating and sizing up wild land fires (1a, 1b, 2a, 2b, 2c);
    c. explaining suppression techniques and safety procedures (1a, 1b, 2a, 2b, 2c).
4. Demonstrate an understanding of fire protection systems by
    a. describing the purpose of the National Fire Protection Association (NFPA) 13 (1a, 1b, 2a, 2b, 2c);
    b. explaining the purpose of NFPA 101, life safety code, applicable to fire prevention inspections (1a, 1b, 2a, 2b, 2c).
5. Demonstrate an understanding of public transportation by
    a. describing recommended procedures using apparatus, equipment, and resources available as they apply to the modes of public transportation (1a, 1b, 2a, 2b, 2c).

FIRT 1307 - Fire Prevention Codes and Inspections

General

Course Key
545

Course Rubric
FIRT

Course Number
1307

Course Title
Fire Prevention Codes and Inspections

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Local building and fire prevention codes. Fire prevention inspections, practices, and procedures. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply provisions of local building and fire prevention codes to fire prevention inspections; and describe fire inspection practices and procedures including hazard recognition and correction. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of issues relating to fire prevention codes by
    a. explaining the national fire problem and main related issues (1a, 1b, 2b);
    b. explaining the need for, responsibilities of, and importance of fire prevention as part of an overall mix of fire protection (1a, 1b, 1c, 2a, 2b, 2c);
    c. explaining the need for, responsibilities of, and importance of fire prevention organizations (1a, 1b, 1c, 2a, 2b, 2c);
    d. identifying minimum professional qualifications at the state and national level for Fire Inspector, Fire Investigator and Public Educator (1a, 1b, 1c, 2b);
    e. defining the elements of a Plan Review Process (1a, 1b, 2c, 2d);
    f. identifying the laws, rules, codes, and other regulations relevant to fire protection of the authority or authorities having jurisdiction (1a, 1b, 2c, 2d);
    g. discussing training programs for fire prevention (1b, 2a, 2b);
    h. designing media programs (1b, 2d);
    i. discussing the major programs for public education (2a, 2b, 2c).

FIRT 1309 - Fire Administration I

General

Course Key
551

Course Rubric
FIRT

Course Number
1309

Course Title
Fire Administration I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the intra-organizational cooperation needed for fire department operations; describe fundamental management and organizational principles; and demonstrate leadership and management skills at the company grade level. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate understanding of fire departments and their responsibilities as a company officer by
    a. explaining different fire department structures (1a, 1b, 2a, 2b, 2c);
    b. defining the company officer's legal responsibilities and liability (1a, 1b, 2a, 2b, 2c);
    c. explaining the importance of the company as a group (1a, 1b, 2a, 2b, 2c);
    d. defining leadership as a group influence (1a, 1b, 2a, 2b, 2c);
    e. identifying the elements of supervision and management (1a, 1b, 2a, 2b, 2c);
    f. relating the importance of company level training (1a, 1b, 2a, 2b, 2c);
    g. listing the different types of government structure (1a, 1b, 2a, 2b, 2c);
    h. explaining the importance of community awareness and public relations (1a, 1b, 2a, 2b, 2c);
    i. listing the elements of public education program development and implementation (1a, 1b, 2a, 2b, 2c).

FIRT 1311 - Fire Service Hydraulics

General

Course Key
8031

Course Rubric	Course Number	Course Title
FIRT	1311	Fire Service Hydraulics

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Application of hydraulic principles to analyze and solve water supply problems related to fire protection.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe basic principles of hydraulics; identify components of a water distribution system; calculate fire flows for various types of occupancies; explain various types of fire pumps and pump operational procedures; calculate pump pressure for various types of hose lays; and describe various types of nozzles and the application of each type. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate understanding of basic fire ground operations and tactical goals by
    a. defining hydraulics (1a, 1b, 2a, 2b, 2c);
    b. examining characteristics of water (1a, 1b, 2a, 2b, 2c);
    c. explaining hydrostatics (1a, 1b, 2a, 2b, 2c);
    d. analyzing velocity and discharge (1a, 1b, 2a, 2b, 2c);
    e. listing basic flow formulas (1a, 1b, 2a, 2b, 2c);
    f. applying discharge coefficients (1a, 1b, 2a, 2b, 2c);
    g. explaining nozzle reaction (1a, 1b, 2a, 2b, 2c);
    h. classifying types of hydrants (1a, 1b, 2a, 2b, 2c);
    i. classifying fire service pumps (1a, 1b, 2a, 2b, 2c);
    j. explaining a centrifugal fire pump (1a, 1b, 2a, 2b, 2c);
    k. defining cavitation (1a, 1b, 2a, 2b, 2c);
    l. distinguishing between a single stage and two stage fire pump (1a, 1b, 2a, 2b, 2c);
    m. identifying pressure control devices (1a, 1b, 2a, 2b, 2c);
    n. calculating friction loss (1a, 1b, 2a, 2b, 2c).

FIRT 1315 - Hazardous Materials I

General

Course Key
564

Course Rubric	Course Number	Course Title
FIRT	1315	Hazardous Materials I

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). The chemical characteristics and behavior of various materials. Storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify hazardous materials in various shipping and storage containers; explain chemical characteristics, and how chemicals may react under certain conditions; select protective clothing and equipment; and describe the most effective methods of hazard mitigation. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate understanding of basic fire ground operations and tactical goals by
    a. defining chemistry (1a, 1b, 2a, 2b, 2c);
    b. critiquing atomic structure (1a, 1b, 2a, 2b, 2c);
    c. analyzing the characteristics of compounds (1a, 1b, 2a, 2b, 2c);
    d. describing covalent bonding (1a, 1b, 2a, 2b, 2c);
    e. explaining how nonmetals combine (1a, 1b, 2a, 2b, 2c);
    f. defining straight chain hydrocarbons (1a, 1b, 2a, 2b, 2c);
    g. describing isomers (1a, 1b, 2a, 2b, 2c);
    h. listing seven hydrocarbon derivatives (1a, 1b, 2a, 2b, 2c);
    i. contrasting pyrolysis and bond energies (1a, 1b, 2a, 2b, 2c);
    j. enumerating the physical forms of compressed gases (1a, 1b, 2a, 2b, 2c);
    k. contrasting temperature, pressure, and volume (1a, 1b, 2a, 2b, 2c);
    l. identifying the hazards of cryogenics (1a, 1b, 2a, 2b, 2c);
    m. defining polymer and its groups (1a, 1b, 2a, 2b, 2c);
    n. explaining monomer and its groups (1a, 1b, 2a, 2b, 2c);
    o. contrasting acids and bases (1a, 1b, 2a, 2b, 2c);
    p. defining organic peroxides (1a, 1b, 2a, 2b, 2c);
    q. identifying DOT classifications (1a, 1b, 2a, 2b, 2c);
    r. explaining water and air reactive materials (1a, 1b, 2a, 2b, 2c);
    s. enumerating and defining pyrophoric materials (1a, 1b, 2a, 2b, 2c).

FIRT 1329 - Building Codes and Construction

General

Course Key
571

Course Rubric
FIRT

Course Number
1329

Course Title
Building Codes and Construction

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Examination of building codes and requirements, construction types, and building materials. Includes walls, floorings, foundations, and various roof types and the associated dangers of each. This course meets Fire and Emergency Services Higher Education(FESHE) Model Curriculum core requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify model building codes; and compare construction types related to fire behavior. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate understanding of basic fire ground operations and tactical goals by
    a. identifying reasons for building construction (1a, 1b, 2a, 2b, 2c);
    b. explaining design considerations (1a, 1b, 2a, 2b, 2c);
    c. defining the steps in the design and construction process (1a, 1b, 2a, 2b, 2c);
    d. explaining differences in building classifications (1a, 1b, 2a, 2b, 2c);
    e. defining structural failure (1a, 1b, 2a, 2b, 2c);
    f. explaining the sources of force (1a, 1b, 2a, 2b, 2c);
    g. defining live and dead loads (1a, 1b, 2a, 2b, 2c);
    h. listing primary building materials (1a, 1b, 2a, 2b, 2c);
    i. examining the relative strengths of building materials (1a, 1b, 2a, 2b, 2c);
    j. identifying building systems (1a, 1b, 2a, 2b, 2c);
    k. explaining the hazards of each type of construction to firefighters (1a, 1b, 2a, 2b, 2c);
    l. illustrating various fire protection systems (1a, 1b, 2a, 2b, 2c).

FIRT 1338 - Fire Protection Systems

General

Course Key
587

Course Rubric
FIRT

Course Number
1338

Course Title
Fire Protection Systems

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers; identify the applications of fire detection, alarm, and extinguishing systems; and explain the operation of fire detection, alarm, and extinguishing systems. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate understanding of national fire emergency standards according to the Fire and Emergency Services Higher Education Conference (FESHE) by
    a. explaining appropriate national standards governing the installation, inspection, and maintenance of given extinguishing systems and their related components (1a, 1b, 2a, 2b, 2c, 2e);
    b. classifying detection, alarm, supervisory devices, heat, flame, smoke control devices, and hardware (1b, 2a, 2c);
    c. articulating knowledge of distribution and installation of water supply systems in suburban and rural areas (1a, 1b, 2a, 2b, 2e);
    d. distinguishing types, components, and operation of automatic, special sprinkler systems, and standpipes (1a, 1b, 2a, 2b, 2c);
    e. distinguishing types, components, and operation of automatic, special sprinkler systems, and standpipes (1a, 1b, 2a, 2b, 2c);
    f. explaining appropriate national standards governing the installation, inspection, and maintenance of given extinguishing agent/systems and their related components (1a, 1b, 2a, 2b, 2c, 2e);
    g. distinguishing types, components, and operation of automatic special sprinkler systems and standpipes (1a, 1b, 2a, 2b, 2c).

FIRT 1349 - Fire Administration II

General

Course Key
601

Course Rubric
FIRT

Course Number
1349

Course Title
Fire Administration II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). In-depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service, and relationships between the fire service and outside agencies. Recommended Prerequisite: FIRT-1309

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take firt-1309;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): FIRT 1309

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: List the organizations that work with the fire service and explain how they affect fire service operations; develop an organizational structure demonstrating interagency cooperation and explain how those agencies assist a fire service function; and describe management principles and techniques for effective organizational performance. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic concepts of fire service management by
    a. describing how history impacts the fire industry today (1a, 1b, 2a, 2e);
    b. explaining how the National Fire Academy has influenced professional development in the fire service (1a, 1b, 2a, 2e);
    c. explaining modern management theories such as Theory X, Theory Y, Theory Z, Maslow's hierarchy, motivation hygiene model and others (1b, 1c, 2b, 2e);
    d. defining the importance of the Johari Window in enhancing leadership ability (1a, 1b, 2b, 2c);
    e. explaining why core values are important to an organization (1b, 1c, 2b, 2c);
    f. describing past events that have forced ethical legislation to be written (1b, 2a, 2b, 2c);
    g. describing how morale can affect and impact an organization (1b, 1c, 2b, 2c);
    h. explaining the typical models of local governance and organization (1a, 1b, 2b, 2e);
    i. explaining the differences between probability and consequence and why they are important in the development of community risk management (1b, 1c, 2b, 2c);
    j. defining performance measures, baselines, and benchmarks (1a, 1b, 2b, 2c);
    k. describing the federal National Response Plan (1a, 1b, 2a, 2c).

FIRT 1433 - Fire Chemistry I

General

Course Key
10534

Course Rubric	Course Number	Course Title
FIRT	1433	Fire Chemistry I

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-1) Chemical nature and properties of compounds as related to the fire service. Fundamental laws of chemistry, states of matter, gas laws, chemical bonding, and thermodynamics. This course meets Fire and Emergency Services Higher Education (FESHE) Model Curriculum core requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the combustion process; describe states of matter; differentiate properties of gases and solutions; and interpret chemical reactions related to effective fire extinguishment. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate understanding of basic fire ground operations and tactical goals by
    a. defining chemistry (1a, 1b, 2a, 2b, 2c);
    b. explaining the role of fire throughout history (1a, 1b, 2a, 2b, 2c);
    c. describing the classes of fire (1a, 1b, 2a, 2b, 2c);
    d. defining matter (1a, 1b, 2a, 2b, 2c);
    e. describing density of matter (1a, 1b, 2a, 2b, 2c);
    f. explaining features of matter and energy (1a, 1b, 2a, 2b, 2c);
    g. determining units of measurement (1a, 1b, 2a, 2b, 2c);
    h. identifying elements and compounds (1a, 1b, 2a, 2b, 2c);
    i. explaining the elements of chemical bonding (1a, 1b, 2a, 2b, 2c);
    j. classifying metals, nonmetals, and metalloids (1a, 1b, 2a, 2b, 2c);
    k. classifying chemical reactions (1a, 1b, 2a, 2b, 2c);
    l. listing eight important common elements (1a, 1b, 2a, 2b, 2c);
    m. describing the physical properties of oxygen and halogens (1a, 1b, 2a, 2b, 2c);
    n. identifying the alkali metals (1a, 1b, 2a, 2b, 2c);
    o. examining chemical categories of organic pesticides (1a, 1b, 2a, 2b, 2c);
    p. defining organic compounds (1a, 1b, 2a, 2b, 2c);
    q. explaining halogenated hydrocarbons (1a, 1b, 2a, 2b, 2c);
    r. defining polymerization (1a, 1b, 2a, 2b, 2c);
    s. explaining US DOT explosive regulations (1a, 1b, 2a, 2b, 2c);
    t. describing storage practices of chemical explosives (1a, 1b, 2a, 2b, 2c);
    u. listing the types of radiation (1a, 1b, 2a, 2b, 2c).

FIRT 2309 - Firefighting Strategies and Tactics I

General

Course Key
8055

Course Rubric	Course Number	Course Title
FIRT	2309	Firefighting Strategies and Tactics I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of staffing and equipment to mitigate the emergency.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify potential scenarios in various fire situations; develop strategies and tactics; and describe components of an incident management system. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate understanding of basic fire ground operations and tactical goals by
    a. describing firefighting operations (1a, 1b, 2a, 2b, 2c);
    b. explaining occupancy classes and fuel loading (1a, 1b, 2a, 2b, 2c);
    c. applying fire flow calculations (1a, 1b, 2a, 2b, 2c);
    d. selecting proper hose lines (1a, 1b, 2a, 2b, 2c);
    e. demonstrating fire ground safety (1a, 1b, 2a, 2b, 2c);
    f. identifying tactical priorities (1a, 1b, 2a, 2b, 2c);
    g. applying ICS system to fire ground operations (1a, 1b, 2a, 2b, 2c);
    h. applying risk versus benefit analysis (1a, 1b, 2a, 2b, 2c);
    i. defining pre-fire planning (1a, 1b, 2a, 2b, 2c);
    j. describing fire attack (1a, 1b, 2a, 2b, 2c);
    k. identifying fire ground safety concerns (1a, 1b, 2a, 2b, 2c);
    l. contrasting fire attack modes (1a, 1b, 2a, 2b, 2c);
    m. explaining positive and negative ventilation effects (1a, 1b, 2a, 2b, 2c).

FIRT 2331 - Firefighting Strategies and Tactics II

General

Course Key
8054

Course Rubric
FIRT

Course Number
2331

Course Title
Firefighting Strategies and Tactics II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Emphasis on the use of incident management in large scale command problems and other specialized fire problems. (Capstone Course - Must be taken during the last semester of the program.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize the incident management system; diagram a fire attack for a complex fire incident; and develop strategies to mitigate various emergency scenarios. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. The student will demonstrate understanding of basic fire ground operations and tactical goals by
    a. describing firefighting operations (1a, 1b, 2a, 2b, 2c);
    b. explaining occupancy classes and fuel loading (1a, 1b, 2a, 2b, 2c);
    c. applying fire flow calculations (1a, 1b, 2a, 2b, 2c);
    d. selecting proper hose lines (1a, 1b, 2a, 2b, 2c);
    e. demonstrating fire ground safety (1a, 1b, 2a, 2b, 2c);
    f. identifying tactical priorities (1a, 1b, 2a, 2b, 2c);
    g. applying ICS system to fire ground operations (1a, 1b, 2a, 2b, 2c);
    h. applying risk versus benefit analysis (1a, 1b, 2a, 2b, 2c);
    i. defining pre-fire planning (1a, 1b, 2a, 2b, 2c);
    j. describing fire attack (1a, 1b, 2a, 2b, 2c);
    k. identifying fire ground safety concerns (1a, 1b, 2a, 2b, 2c);
    l. contrasting fire attack modes (1a, 1b, 2a, 2b, 2c);
    m. explaining positive and negative ventilation effects (1a, 1b, 2a, 2b, 2c).

FIRT 2388 - Internship-Emergency Managment

General

Course Key
12989

Course Rubric
FIRT

Course Number
2388

Course Title
Internship Emergency Management

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
9

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-9). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer. This may be a paid or unpaid experience.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate skills appropriate to the external working environment, while working as an intern by
    a. working successfully in a new external work/learning environment (1a, 1b, 1c, 2a, 2b, 2e);
    b. evaluating procedures and processes from the perspective of a neutral party in order to provide feedback to the sponsoring organization (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. summarizing in verbal and written form the experiences gained from the external environment (1a, 1b, 1c, 2b, 2c);
    d. integrating successfully into organizations other than the normal workplace (1c, 2b, 2c).

FLMC 1304 - Lighting for Film or Video

General

Course Key
14383

Course Rubric
FLMC

Course Number
1304

Course Title
Lighting for Film or Video

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Fundamentals of lighting techniques for film or video production with respect to lighting tools, composition and camera motion to support dynamic storytelling. Required Prerequisite: COMM-1336, COMM-2303 and RTVB-1321 Required Prerequisite/Corequisite: FLMC-2333 Recommended Prerequisite: COMM-1307 or COMM-1335

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RTVB-1321(11047) comm-1336 comm-2303;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Pre/ Co- Requisite

10
A Requirement block where all subrequirements are required

take flmc-2333
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take comm-1307 or COMM-1335;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): COMM 1336, COMM 2303 and RTVB 1321
Required Prerequisite(s) or Corequisite(s): FLMC 2333
Recommended Prerequisite(s): COMM 1307 or COMM 1335

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate skills in lighting a scene to achieve a professional camera image while on location or in a studio setting. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Explain the nature of work in lighting for the film and television business by
    a. defining the job of lighting for film and television production (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. describing the relationship of the lighting department to other production departments (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying principles of lighting contributions to the film and television art forms (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. analyzing lighting in film and television productions where it is done well and where it is done poorly (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate the ability to distinguish values and qualities of light on a set by
    a. identifying the conventional wisdom of the nature of light (1a, 1b, 1c, 2b, 2c);
    b. identifying the sources of light (1a, 1b, 1c, 2b, 2c);
    c. defining the qualities of light (1a, 1b, 2a, 2c, 2d);
    d. distinguishing the principles of the color of light (1a, 1b, 2a, 2c, 2d).
3. Perform safe practices and techniques for handling lighting equipment, instruments, and lamps by
    a. identifying the components and functions of a variety of lamps for lighting instruments (1a, 1b, 2a, 2c, 2d, 2e);
    b. defining the function and application of reflectors as a source of light on the set (1a, 1b, 2a, 2c, 2d, 2e);
    c. manipulating the components and functions of a variety of basic lighting instruments (1a, 1b, 2a, 2c, 2d, 2e);

d. describing the purpose and applications for special lighting instruments to achieve specific illumination on the set (1a, 1b, 2a, 2c, 2d, 2e);

e. demonstrating image contrast ratios and how to make adjustments with light (1a, 1b, 2a, 2c, 2d, 2e);

f. employing a variety of ancillary equipment used to control and manipulate light from instruments on the set (1a, 1b, 2a, 2c, 2d, 2e).

4. Prepare basic lighting setups by

a. defining how instruments are set up to provide basic lighting on the set (1a, 1b, 2a, 2c, 2d, 2e);

b. performing to survey a location for lighting (1a, 1b, 2a, 2c, 2d, 2e);

c. staging lighting instruments in preparation for lighting a location (1a, 1b, 2a, 2c, 2d, 2e);

d. correcting problems with lights that requires correction (1a, 1b, 2a, 2c, 2d, 2e);

e. explaining the power needs for lights and solutions on set (1a, 1b, 2a, 2c, 2d, 2e);

f. plotting lighting set ups with diagrams for directing others how to set lights (1a, 1b, 2a, 2b, 2c, 2d, 2e);

g. maintaining light kits for stocking, set up and striking lights on the set (1a, 1b, 2a, 2c, 2d, 2e).

5. Work as a team member and leader of lighting projects in various production locations by

a. defining unique needs and solutions for lighting on location (1a, 1b, 2a, 2c, 2d, 2e);

b. determining how to work in mixed lighting conditions (1a, 1b, 2a, 2c, 2d, 2e);

c. configuring lighting instruments for moving shots (1a, 1b, 2a, 2c, 2d, 2e);

d. creating lighting techniques for green screen and blue screen shots in a variety of set configurations (1a, 1b, 2a, 2c, 2d, 2e);

e. creating lighting setups solving for a variety of problems with costumes (1a, 1b, 2a, 2c, 2d, 2e);

f. creating lighting setups solving for a variety of problems with table top items (1a, 1b, 2a, 2c, 2d, 2e);

g. creating lighting setups presenting a variety of moods (1a, 1b, 2a, 2c, 2d, 2e);

h. creating lighting setups for a variety of talent with various hair colors and skin tones (1a, 1b, 2a, 2c, 2d, 2e);

i. creating lighting setups presenting a variety of special lighting effects (1a, 1b, 2a, 2c, 2d, 2e);

j. solving lighting setup problems for a variety of set challenges (1a, 1b, 2a, 2c, 2d, 2e).

FLMC 2333 - Cinematography

General

Course Key
14384

Course Rubric
FLMC

Course Number
2333

Course Title
Cinematography

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Advanced concepts of theoretical elements and practical applications of the cinematic craft. Required Prerequisite: RTVB-1321, COMM-1336, and COMM-2303 Required Prerequisite/Corequisite: FLMC-1304 Recommended Prerequisite: COMM 1307 or COMM 1335

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RTVB-1321(11047) comm-1336 comm-2303;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take comm-1307 or comm-1335
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

See course description for prerequisite/corequisite.
Type
Pre/ Co-requisite

10
A Requirement block where all subrequirements are required

take flmc-1304;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RTVB 1321, COMM 1336, and COMM 2303
Required Prerequisite(s) or Corequisite(s): FLMC 1304
Recommended Prerequisite(s): COMM 1307 or COMM 1335

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Employ concepts and theory; analyze scene with respect to cinematography; explain differences in lighting styles; evaluate cinematic production tools; and apply techniques to produce a short video or film. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Examine cinematography for film and video productions by

a. defining a film or HDTV cine camera production system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. identifying the jobs performed on a film shoot (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. describing the process of creating film programs in the field (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. identifying the principles of planning a film production (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

e. developing time management skills to maximize field production time (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

f. explaining the steps in the production process (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

2. Develop the skills necessary to operate HDTV cine equipment for single camera film production by

a. operating cine field cameras (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. applying effective picture composition techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. identifying field camera mounting equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. applying effective camera movement techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

e. identifying field lighting instruments (1a, 1b, 1c, 2a, 2c, 2d, 2e);

f. operating field lighting instruments (1a, 1b, 1c, 2a, 2c, 2d, 2e);

g. identifying signal formats for acquisition (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

h. operating field audio production equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

i. identifying battery and DC power formats for field equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

j. demonstrating proper camera operating techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

k. demonstrating proper field monitor operating techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

l. assisting in the operation of all field equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

3. Explore the technical processes of advanced signal applications by

a. explaining the function of white balance (1a, 1b, 1c, 2a, 2c, 2d, 2e);

b. differentiating how light is transduced into an electronic signal (1a, 1b, 1c, 2a, 2c, 2d, 2e);

c. explaining the function of gain in visual and sound applications (1a, 1b, 1c, 2a, 2c, 2d, 2e);

d. explaining the function of gamma in acquisition (1a, 1b, 1c, 2a, 2c, 2d, 2e);

e. differentiating the qualities of light sources for the cinematographer (1a, 1b, 1c, 2a, 2c, 2d, 2e);

f. examining field recording systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);

g. differentiating recording formats for visual and sound signals (1a, 1b, 1c, 2a, 2c, 2d, 2e).

4. Explore the technical processes of advanced lens applications by

a. examining lens systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);

b. differentiating how light is measured for cinematography (1a, 1b, 1c, 2a, 2c, 2d, 2e);

c. explaining the function of matte boxes (1a, 1b, 1c, 2a, 2c, 2d, 2e);

d. explaining the function of filters on the lens (1a, 1b, 1c, 2a, 2c, 2d, 2e);

e. differentiating the qualities of lenses (1a, 1b, 1c, 2a, 2c, 2d, 2e);

f. examining focus systems and techniques (1a, 1b, 1c, 2a, 2c, 2d, 2e);

g. examining techniques to control exposure (1a, 1b, 1c, 2a, 2c, 2d, 2e).

5. Perform the production functions of a cinematographer by

a. interpreting scripts for productions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. conceptualizing shooting ideas (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. creating a lighting plan (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. applying creative lighting techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

e. explaining the elements of a camera slate (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

f. composing a variety of shots (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

g. creating a camera department equipment list (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

h. following procedures to properly check out and return equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

i. preparing materials to be used for a production or exercise (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

j. producing programs and exercises (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

6. Perform a variety of production functions required for shooting programs in the field by

a. practicing safe operations with equipment and personnel in the field (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. serving as crewmember in every position required using learned skills (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. performing as talent on television productions as necessary (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. operating camcorders properly (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

e. operating audio equipment properly (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

f. communicating effectively with production team members (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

g. analyzing film and video production program elements constructively both verbally and in writing (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

h. critiquing personal production performance constructively both verbally and in writing (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

i. delivering completed production assignments (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

FLMC 2334 - Directing for Film or Video

General

Course Key
14385

Course Rubric	Course Number	Course Title
FLMC	2334	Directing for Film or Video

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Analysis of directing styles to formulate a personal directing style. Includes directing a film or video production. Required Prerequisites: COMM-1336, COMM-2303, and RTVB-1321 Required Prerequisite/Corequisites: FLMC-1304 and FLMC-2333 A granted petition is required for registration.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RTVB-1321(12732) comm-1336 comm-2303;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Pre/ Co-requisite

10
A Requirement block where all subrequirements are required

take flmc-1304 flmc-2333;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): COMM 1336, COMM 2303, and RTVB 1321
Prerequisite(s) or Corequisite(s): FLMC 1304 and FLMC 2333. A granted petition is required for registration.

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the works of classic and contemporary directors; identify the skill sets of a director; and direct a crew and talent in a film or video production. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the process of creating program length film and video productions by

a. exploring the process of creating program length film and television productions (1a, 1b, 2a, 2c, 2d, 2e);

b. examining the production timeline (1a, 1b, 2a, 2c, 2d, 2e);

c. identifying the production team positions for large scale productions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. identifying the principles of planning a long form production (1a, 1b, 2a, 2c, 2d, 2e);

e. discovering the tools used to manage large scale productions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

f. explaining the steps in mounting a large production (1a, 1b, 2a, 2c, 2d, 2e).

2. Demonstrate an understanding of the legal issues of film and television productions by

a. describing how a property is acquired for production (1a, 1b, 2a, 2c, 2d, 2e);

b. determining techniques for acquiring production rights (1a, 1b, 2a, 2c, 2d, 2e);

c. differentiating contractual production credits (1a, 1b, 2a, 2c, 2d, 2e);

d. examining production contracts (1a, 1b, 2a, 2c, 2d, 2e);

e. identifying relevant labor laws affecting production (1a, 1b, 1c, 2a, 2c, 2d, 2e);

f. examining remedies for production risks (1a, 1b, 1c, 2a, 2c, 2d, 2e);

g. examining funding sources for production (1a, 1b, 2a, 2c, 2d, 2e);

h. exploring tax advantages for production (1a, 1b, 2a, 2c, 2d, 2e);

i. identifying film commission resources (1a, 1b, 2a, 2c, 2d, 2e);

j. exploring legal liabilities of production (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

3. Demonstrate an understanding of the role of the producer in film and television productions by

a. examining the responsibilities of the producer (1a, 1b, 1c, 2a, 2c, 2d, 2e);

b. differentiating the various jobs with a producer title (1a, 1b, 1c, 2a, 2c, 2d, 2e);

c. explaining the process of development (1a, 1b, 1c, 2a, 2c, 2d, 2e);

d. explaining the function of the script (1a, 1b, 1c, 2a, 2c, 2d, 2e);

e. examining how a budget is produced (1a, 1b, 1c, 2a, 2c, 2d, 2e);

f. examining a production business proposal package (1a, 1b, 1c, 2a, 2c, 2d, 2e);

g. differentiating the stages of preproduction (1a, 1b, 1c, 2a, 2c, 2d, 2e);

h. analyzing case studies of producing scenarios (1a, 1b, 2a, 2c, 2d, 2e).

4. Demonstrate an understanding of the role of the director in creating film and television productions by

a. examining the responsibilities of the director (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. differentiating the positions working with a director title (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. differentiating between narrative and documentary program formats (1a, 1b, 2a, 2c, 2d, 2e);

d. explaining directing styles (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

e. analyzing a script as a director (1a, 1b, 2a, 2c, 2d, 2e);

f. analyzing script characterization (1a, 1b, 2a, 2c, 2d, 2e);

g. staging cameras (1a, 1b, 2a, 2c, 2d, 2e);

h. determining production lighting needs (1a, 1b, 2a, 2c, 2d, 2e);

i. determining production music needs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

j. determining production design needs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

k. determining production location needs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

l. determining production audio needs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

m. analyzing case studies of directing scenarios (1a, 1b, 2a, 2c, 2d, 2e).

5. Participate in creating program length video productions by

a. practicing safe operations with equipment and personnel (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. developing a treatment (1a, 1b, 2a, 2c, 2d, 2e);

c. developing a script (1a, 1b, 2a, 2c, 2d, 2e);

d. developing storyboards (1a, 1b, 2a, 2c, 2d, 2e);

e. developing script breakdowns (1a, 1b, 2a, 2c, 2d, 2e);

f. developing a shot list (1a, 1b, 2a, 2c, 2d, 2e);

g. completing a shooting schedule (1a, 1b, 2a, 2c, 2d, 2e);

h. completing a crew list (1a, 1b, 2a, 2c, 2d, 2e);

i. completing a production schedule (1a, 1b, 2a, 2c, 2d, 2e);

j. completing talent release forms (1a, 1b, 2a, 2c, 2d, 2e);

k. developing a production budget summary (1a, 1b, 2a, 2c, 2d, 2e);

l. developing a script analysis (1a, 1b, 2a, 2c, 2d, 2e);

m. developing a script markup (1a, 1b, 2a, 2c, 2d, 2e);

n. developing audition notes for talent selection (1a, 1b, 2a, 2c, 2d, 2e);

o. completing call sheets (1a, 1b, 2a, 2c, 2d, 2e);

p. developing blocking diagrams (1a, 1b, 2a, 2c, 2d, 2e);

q. developing remote survey sheets (1a, 1b, 2a, 2c, 2d, 2e);

r. developing budget worksheets (1a, 1b, 2a, 2c, 2d, 2e);

s. participating in a variety of production roles for practice productions (1a, 1b, 2a, 2c, 2d, 2e);

t. examining post production requirements (1a, 1b, 2a, 2c, 2d, 2e).

6. Demonstrate an understanding of the marketing and distribution outlets for film and television productions by

a. analyzing festival circuit opportunities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. examining distribution deals (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. analyzing online distribution opportunities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. exploring product lifespan issues (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

FREN 1411 - Beginning French I

General

Course Key
16400

Course Rubric
FREN

Course Number
1411

Course Title
Beginning French I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2). Fundamental skills in listening comprehension, speaking, reading, and writing. Includes acquisition of language functions, basic vocabulary, grammatical structures, and culture through contextualized presentations, interactive activities, and extensive laboratory practice.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

FREN 1412 - Beginning French II

General

Course Key
16401

Course Rubric
FREN

Course Number
1412

Course Title
Beginning French II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2). Continuation of FREN 1411. Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture with emphasis on conversation. Laboratory practice. Recommended Prerequisite: FREN-1411

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take fren-1411;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

FREN 2311 - Intermediate French I

General

Course Key
16402

Course Rubric
FREN

Course Number
2311

Course Title
Intermediate French I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Continuation of FREN-1412. Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Class conducted largely in French. Recommended Prerequisite: FREN-1412

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

FREN 2312 - Intermediate French II

General

Course Key
16403

Course Rubric
FREN

Course Number
2312

Course Title
Intermediate French II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Continuation of FREN 2311. Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Recommended Prerequisite: FREN 2311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take fren-2311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

FSHN 1301 - Textiles

General

Course Key
11758

Course Rubric
FSHN

Course Number
1301

Course Title
Textiles

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) A general study of textiles with emphasis on factors that affect the hand, appearance, and performance in clothing use. Examination of the fibers, yarns, dyeing, printing and finishing. Application of textiles used in the apparel industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Distinguish between natural and man-made fibers; identify the types of yarns; explain construction methods; examine dyeing methods; differentiate printing techniques; describe finishing techniques; and analyze textile applications for the design, manufacturing, marketing, and care of fashion merchandise. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Distinguish between natural and manmade fibers (1a, 1b, 2c).
2. Identify types of yarns (1a, 1b, 2c).
3. Explain construction methods (1a, 1b, 2c, 2d, 2e).
4. Examine dyeing methods (1a, 1b, 2c, 2d, 2e).
5. Differentiate printing techniques (1a, 1b, 2c, 2d, 2e).
6. Describe finishing techniques (1a, 1b, 2c).
7. Analyze textile applications for the design, manufacturing, marketing, and care of fashion merchandise (1a, 1b, 1c, 2a, 2b, 2c).

FSHN 1312 - Apparel and Accessories Marketing Operat

General

Course Key
12111

Course Rubric
FSHN

Course Number
1312

Course Title
Apparel and Accessories Marketing Operations

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An overview of fashion trends and concepts to include branding, environmental influences, and marketing operations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Examine apparel and accessories marketing procedures; apply marketing concepts and procedures to the development of a marketing plan; present a marketing plan for an apparel or accessory product. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the development of the American fashion industry as it impacts today's marketing of apparel and accessories (1a, 1b, 1d, 2d).
2. Explain how fashion trends and consumer demand impact apparel and accessories marketing (1a, 1b, 1d, 1e, 1f).
3. Explain how environmental influences affect the marketing of apparel and accessory products (1a, 1b, 1d, 1e, 2f).
4. Demonstrate an understanding of the global nature of apparel and accessories marketing (1a, 1b, 1d, 1d, 1f).
5. Demonstrate an understanding of the critical nature of branding apparel and accessories products (1a, 1b, 1d, 2f).
6. Examine apparel and accessory marketing procedures (1a, 1b, 1d, 2a, 23, 2f).
7. Apply marketing concepts and procedures to the development of a marketing plan for apparel or accessory product (1a, 1b, 1d, 2a, 2b, 2c, 2f).
8. Present a marketing plan for an apparel or accessory product (1a, 1b, 1e, 2a, 2d, 3a).

FSHN 2301 - Fashion Promotion

General

Course Key
10535

Course Rubric
FSHN

Course Number
2301

Course Title
Fashion Promotion

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A survey of fashion direction, publicity, and fashion event coordination. Emphasis on fashion event production.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop a fashion promotion plan; write a fashion press release; distribute press release to media; and coordinate a fashion event. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the role of fashion promotion in the global marketplace (1a, 1b, 2a, 2c, 2d, 2e).
2. Develop a visual merchandising unit (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Plan and coordinate a fashion show (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Develop a social networking tool for promoting fashion show (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Write media releases for planned fashion show (1a, 1b, 2a, 2c, 2d, 2e).
6. Recruit, train, and rehearse models (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Coordinate, run, and evaluate fashion show (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

FSHN 2305 - Fashion Retailing

General

Course Key
8087

Course Rubric
FSHN

Course Number
2305

Course Title
Fashion Retailing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An overview of retailing procedures used in various types of fashion companies. A study of operations, personnel, merchandising, sales promotion, and finance and control. Examination of job opportunities available in the retail fashion industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Distinguish the types of retail fashion companies; examine practices in operations; identify personnel needs; develop merchandise assortment; implement sales promotion concepts; differentiate among various finance and control procedures; and research job opportunities. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Distinguish the types of fashion retail companies by
    a. identifying types of store based fashion retailers (2c);
    b. outlining forms of offsite fashion retailing including internet usage (2c, 2d);
    c. describing trends in globalization of fashion retailing (2c, 2d).
2. Demonstrate an understanding of methods for classifying fashion consumer behavior by
    a. identifying types of fashion buying motives (2c, 2d);
    b. outlining fashion consumer research methods (2c, 2d);
    c. distinguishing demographic, psychographic, and lifestyle groupings of fashion consumers (2c, 2d).
3. Demonstrate an understanding of considerations in locating and designing a fashion retail store by
    a. listing critical issues in locating a fashion retail store (2a, 2c, 2d);
    b. describing factors used in developing fashion store layouts (2a, 2c, 2d);
    c. identifying loss prevention methods (2a, 2c, 2d).
4. Demonstrate an understanding of management theories applied in fashion retailing by
    a. identifying organizational structures of fashion retailers (2a, 2b, 2c, 2d);
    b. identifying job opportunities in fashion retailing (2a, 2b, 2c, 2d);
    c. explaining the importance of human resources in successful fashion retail operations (2a, 2b, 2c, 2d);
    d. outlining human resource trends in fashion retailing (2a, 2b, 2c, 2d).
5. Demonstrate an understanding of ethical environments in fashion retailing by
    a. explaining the importance of business ethics (2a, 2b, 2d);
    b. explaining the importance of businesses being socially responsible (2a, 2b, 2d).
6. Demonstrate an understanding of the buying and pricing of fashion merchandising products for resale to the consumer by
    a. outlining the role of fashion buyer (2a, 2c, 2d);
    b. listing decision factors in buying domestic and foreign fashion goods (1b, 2a, 2d);
    c. comparing branding choices (1b, 2c, 2d);
    d. identifying factors in pricing fashion products for resale (2a, 2c, 2d);
    e. calculating markup and markdown (1a, 1b, 2a, 2c, 2d);
    f. calculating 6 month buying plan, assortment plan, and open to buy plan (1a, 1b, 2a, 2c, 2d).
7. Demonstrate an understanding of finance and control procedures in fashion retail operations by
    a. identifying major components of a profit and loss statement and balance sheet and their relationship to a profitable retail operation (1a, 1b, 2a, 2d, 2d);
    b. outlining major measurements used to assess the health of the financial operation of a retail operation (1a, 1b, 2a, 2c, 2d).
8. Demonstrate an understanding of predominant promotional strategies for fashion products by
    a. defining advertising, promotion, and publicity strategies (2a, 2c, 2d);
    b. outlining visual merchandising strategies (1b, 2a, 2b, 2d);
    c. summarizing trends in fashion promotions (2a, 2c, 2d);
    d. implementing sales promotion concepts through project/team assignments (1a, 1b, 2a, 2c, 2d).

FSHN 2309 - Fashion Image

General

Course Key
8981

Course Rubric
FSHN

Course Number
2309

Course Title
Fashion Image

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Instruction in the techniques used to analyze the fashion image of individual clients. Emphasis on personal coloring, body types, and wardrobe coordination. Study of fashion image consultant business practices and job qualifications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze personal fashion images; present an in depth personal image evaluation; and examine the business practices and job qualifications of a fashion image consultant. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the rationale for wearing and for choosing clothes by
    a. identifying the functions of clothing (2c, 2d);
    b. outlining rationale for making choices based on life stages and roles (1b, 1c, 2c, 2d).
2. Demonstrate an understanding of fashion evolution by
    a. tracing developmental eras of fashion (2c, 2d);
    b. identifying fashion designers and their contributions to the industry (2c, 2d).
3. Distinguish fashion styles for men and women by
    a. identifying major categories of clothing (2c, 2d);
    b. listing different clothing styles within each major category (2c, 2d).
4. Choose a garment with rationale based upon figure type by
    a. relating rationale for choosing principles based upon figure types (1b, 2c, 2d);
    b. completing a figure analysis (1b, 1c, 2a, 2b, 2c);
    c. determining best choice of design principles and clothing styles to enhance personal body type (1b, 1c, 2c, 2d).
5. Select appropriate color choices for figure enhancement by
    a. identifying groupings of colors and color combinations (2b, 2d);
    b. illustrating appropriate color choices for body types and skin tones (2b, 2d).
6. Prepare a two week business wardrobe plan by
    a. determining appropriate clothing styles for personal wardrobe choices (2c, 2d);
    b. using design principles and color choices that enhance personal figure in wardrobe plan (1a, 1b, 1c, 2a);
    c. illustrating choices in project presentation format (1a, 1b, 2a, 2e).
7. Demonstrate an understanding of the role of a fashion image consultant by
    a. identifying the qualifications for becoming a fashion image consultant (2c);
    b. giving examples of local fashion image consulting businesses (2c).

GAME 1304 - Level Design

General

Course Key
7556

Course Rubric
GAME

Course Number
1304

Course Title
Level Design

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-2). Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the pros and cons of a level including balance and emotional impact, create original game environments using existing game engines and tools, and evaluate existing architectural spaces for game aesthetics. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up game levels by
    a. defining a game level (1a, 1b, 1d, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    b. defining the elements that make up a game level (1a, 1b, 1d, 2a, 2b, 2f, 3a, 3d, 3c);
    c. defining the appropriate use of the elements that make up a game level (1a, 1b, 1d, 2a, 2b, 2e, 2f, 3a, 3d, 3c).
2. Apply the elements that make up game levels by
    a. building rudimentary game levels using industry accepted practices and applications (1a, 1b, 1d, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    b. incorporating a completed game level into a functioning game or application (1a, 1b, 1d, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    c. defining the testing procedures for a game level (1a, 1b, 1d, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    d. implementing the testing procedures for a game level (1a, 1b, 1d, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e).

GAME 1328 - Video Game Design

General

Course Key
12112

Course Rubric
GAME

Course Number
1328

Course Title
Video Game Design

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to video game design techniques which inspire artists and non-artists. Including characters, environments, architecture, static objects, user interface, and storyboards for games. Emphasizes applying 2D design concepts.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe best practices in design techniques; recommend design solutions; and identify criteria for communicating design. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up basic 2D design and development by
    a. explaining the steps involved in the process of 2D design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. tracing the history and philosophy of 2D design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining current issues and practices behind 2D design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Apply basic design principles to a course project related to 2D design and development using an industry standard application by
    a. developing a rudimentary 2D design using industry accepted practices and applications (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. incorporating current design and development principles into a functioning 2D design so that it reflects the current philosophy of the production process (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. implementing analytic procedures for game 2D design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

GAME 1334 - Video Game Art I

General

Course Key
12116

Course Rubric
GAME

Course Number
1334

Course Title
Video Game Art I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduces tools and techniques used in the creation of assets for a game engine.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Create art assets; integrate assets into game engines; and execute the concepts and fundamentals of graphic objects. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up basic art assets used in game engines by
    a. explaining the steps involved in the process of art asset design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. tracing the history and philosophy of art asset design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining current issues and practices behind art asset design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Apply basic design principles to a course project related to art asset design and development using an industry standard application by
    a. developing rudimentary art assets using industry accepted tools, practices, and applications (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. incorporating current design and development principles into functioning art assets so that they reflect the current philosophy of the production process (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. implementing analytic procedures for art asset design and development (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

GAME 1403 - Introduction to Game Design/Development

General

Course Key
7551

Course Rubric
GAME

Course Number
1403

Course Title
Introduction to Game Design and Development

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Introduction to electronic game development and game development careers. Includes examination of history and philosophy of games, the game production process, employee factors for success in the field, and current issues and practices in the game development industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the history and evolution of video and computer games and game genres; identify the phases and processes involved in developing a computer game; design a simple computer game from initial concept to final design document; and describe current trends in the game industry with regards to hiring practices and working conditions. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up basic game design and development by
    a. explaining the steps involved in the process of game design and development (1a, 1b, 2c);
    b. tracing the history and philosophy of the game production process (1a, 1b, 2a, 2c);
    c. explaining current issues and practices in the game development industry (1a, 1b, 2c, 2d).
2. Apply basic design principles to a course project related to game design and development using an industry standard application by
    a. building a rudimentary game using industry accepted practices and applications (1a, 1b, 2a, 2b, 2c, 2d);
    b. incorporating current design and development principles into a functioning game so that the game reflects the current philosophy of the game production process (1a, 1b, 2a, 2b, 2c, 2d);
    c. implementing testing procedures for the game that is developed during the course (1a, 1b, 2a, 2b, 2c, 2d).

GAME 1409 - Introduction to Animation Programming

General

Course Key
12761

Course Rubric
GAME

Course Number
1409

Course Title
Introduction to Animation Programming

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Mathematical elements and algorithms involved in basic animation. Includes generating graphics, viewing 3D environments such as visible line detection and 3D surfaces, image processing techniques, and special effects.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop programs that apply the basic character animation techniques, build and pose animated characters, and implement proper timing within animations. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up basic animation design and development by
    a. explaining the steps involved in the process of animation design and development (1a, 1b, 2c);
    b. tracing the history and philosophy of the animation production process (1a, 1b, 2a, 2c);
    c. explaining current issues and practices in the animation development industry (1a, 1b, 2c, 2d).
2. Apply basic design principles to a course project related to animation design and development using an industry standard application by
    a. building a rudimentary animation sequence using industry accepted practices and applications (1a, 1b, 2a, 2b, 2c, 2d);
    b. incorporating current design and development principles into a functioning animation sequence so that it reflects the current philosophy of the animation production process (1a, 1b, 2a, 2b, 2c, 2d);
    c. implementing testing procedures for the animation sequence that is developed during the course (1a, 1b, 2a, 2b, 2c, 2d).

GAME 1436 - Introduction to 3D Game Modeling

General

Course Key
12117

Course Rubric
GAME

Course Number
1436

Course Title
Introduction to 3D Game Modeling

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Introduction to 3D game modeling using Architectural spaces and modeling in a real-time game editor. Includes techniques for building, texturing, and lighting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe architectural spaces; demonstrate modeling techniques in a real-time game editor; demonstrate techniques for building, texturing, and lighting a game; and develop architectural objects. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up animated 3D architectural design and development by
    a. explaining the steps involved in the process of animated architectural design and development (1a, 1b, 2c);
    b. tracing the history and philosophy of the architectural animation production process (1a, 1b, 2a, 2c);
    c. explaining current issues and practices in animated architectural development (1a, 1b, 2c, 2d).
2. Apply basic design principles to a course project related to animated architectural design and development using an industry standard application by
    a. building a rudimentary animated architectural sequence using industry accepted practices and applications (1a, 1b, 2a, 2b, 2c, 2d);
    b. incorporating current design and development principles into a functioning animated architectural sequence so that it reflects the current philosophy of the animation production process (1a, 1b, 2a, 2b, 2c, 2d);
    c. implementing testing procedures for the animated architectural sequence that is developed during the course (1a, 1b, 2a, 2b, 2c, 2d).

GAME 1443 - Game and Simulation Programming I

General

Course Key
13651

Course Rubric
GAME

Course Number
1443

Course Title
Game and Simulation Programming I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). Game and simulation programming. Includes advanced pointer manipulation techniques and pointer applications, points and vectors, sound, and graphics. Recommended Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequsite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE COSC-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Incorporate sound and graphics in programs; develop a game/simulation advanced pointer techniques and application. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an appropriate level of competency in understanding and using course concepts by
    a. explaining principles related to the nature and characteristics of analog sound (1a, 1b, 2a, 2b, 2c, 2d);
    b. explaining the relationships between the nature of analog sound and sound perception (1a, 1b, 2a, 2b, 2c, 2d);
    c. explaining principles related to the creation and editing of digital sound files (1a, 1b, 2a, 2b, 2c, 2d);
    d. explaining ambient sound techniques for enhancing immersion in a game environment (1a, 1b, 2a, 2b, 2c, 2d);
    e. explaining techniques for optimizing the use of audio memory (1a, 1b, 2a, 2b, 2c, 2d);
    f. explaining techniques for producing a realistic interactive sound world to support gameplay (1a, 1b, 2a, 2b, 2c, 2d);
    g. explaining basic music techniques for games (1a, 1b, 2a, 2b, 2c, 2d);
    h. explaining effective dialogue techniques in gameplay (1a, 1b, 2a, 2b, 2c, 2d);
    i. explaining basic techniques for modifying a game using Blueprint graphical programming tool (1a, 1b, 2a, 2b, 2c, 2d).

GAME 1459 - Game/Simulation Programming II

General

Course Key
13644

Course Rubric
GAME

Course Number
1459

Course Title
Game and Simulation Programming II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Design and development of game and simulation programs including user interface design, mathematical elements, image and file structure, and software development techniques. Recommended Prerequisite: GAME-1443 and COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take GAME-1443(13651) COSC-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): GAME 1443 and COSC 1436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop a complete game; utilize simple vector and matrix operations to create simple game programs; use best coding practices. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up advanced game audio by
    a. defining advanced game audio (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    b. defining the elements that make up advanced game audio (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    c. defining the appropriate use of the elements that make up advanced game audio (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e).
2. Apply the elements that make up advanced game audio by
    a. developing advanced game audio using industry accepted practices and applications (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    b. incorporating advanced game audio into a functioning game or application (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    c. defining and implementing testing procedures for advanced game audio within a game (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e).

GAME 2308 - Portfolio for Game Development

General

Course Key
9600

Course Rubric
GAME

Course Number
2308

Course Title
Portfolio for Game Development

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Design and management of an industry standard portfolio. Includes techniques in self-promotion, resume writing, portfolio distribution systems, and interviewing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design a professional portfolio for various delivery systems; and create resume, business card, web page, demo reel, and hardcopy. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up a portfolio for the game development industry by
    a. defining what portfolio for game development is (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2f, 3a, 3c, 3d, 3e);
    b. defining the elements that make up a portfolio for game development (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    c. defining the appropriate construction and implementation of the elements that make up a portfolio for game development (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e).
2. Apply the elements that make up a portfolio for game development by
    a. developing a comprehensive portfolio for game development using industry accepted practices and applications (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    b. incorporating game content and designs they have created into a comprehensive portfolio for game development (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e);
    c. defining and implementing accepted industry procedures for creating a portfolio for game development (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f, 3a, 3c, 3d, 3e).

GAME 2325 - 3D Animation II - Character Setup

General

Course Key
12120

Course Rubric
GAME

Course Number
2325

Course Title
3D Animation II - Character Setup

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Character animation for application interfaces. Skinning and weighting, forward kinematics, inverse kinetics, constraints, expressions, scripting and driven keys, mesh deformers, morph targets/blend shapes, and animation user interfaces.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop a character for animating; demonstrate techniques of skinning and weighting, forward kinematics, inverse kinetics, constraints, expressions, scripting and driven keys, mesh deformers, morph targets/blend shapes, and creating animation user interfaces; demonstrate animation of characters to test their rigs; and demonstrate techniques for exporting compressed animations into a game format. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Identify the elements that make up 3D animation design and development by
    a. explaining the steps involved in the process of animation design and development (1a, 1b, 2c);
    b. tracing the history and philosophy of the animation production process (1a, 1b, 2a, 2c);
    c. explaining current issues and practices in the 3D animation development industry (1a, 1b, 2c, 2d).
2. Apply basic design principles to a course project related to 3D animation design and development using an industry standard application by
    a. building a rudimentary 3D animation sequence using industry accepted practices and applications (1a, 1b, 2a, 2b, 2c, 2d);
    b. incorporating current design and development principles into a functioning 3D animation sequence so that it reflects the current philosophy of the animation production process (1a, 1b, 2a, 2b, 2c, 2d);
    c. implementing testing procedures for the 3D animation sequence that is developed during the course (1a, 1b, 2a, 2b, 2c, 2d).

GEOG 1301 - Physical Geography

General

Course Key
16404

Course Rubric
GEOG

Course Number
1301

Course Title
Physical Geography

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course introduces students to the processes that drive Earth's physical systems. Students will explore the relationships among these physical systems, with emphasis on weather and climate, water, ecosystems, geologic processes and landform development, and human interactions with the physical environment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOG 1302 - Human Geography

General

Course Key
16405

Course Rubric
GEOG

Course Number
1302

Course Title
Human Geography

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course introduces students to fundamental concepts, skills, and practices of human geography. Place, space, and scale serve as a framework for understanding patterns of human experience. Topics for discussion may include globalization, population and migration, culture, diffusion, political and economic systems, language, religion, gender, and ethnicity.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOG 1303 - World Regional Geography

General

Course Key
16406

Course Rubric
GEOG

Course Number
1303

Course Title
World Regional Geography

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course is an introduction to the world's major regions seen through their defining physical, social, cultural, political, and economic features. These regions are examined in terms of their physical and human characteristics and their interactions. The course emphasizes relations among regions on issues such as trade, economic development, conflict, and the role of regions in the globalization process.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOL 1305 - Environmental Science (Lecture Only)

General

Course Key
16407

Course Rubric
GEOL

Course Number
1305

Course Title
Environmental Science (Lecture)

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the forces, including humans, which shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOL 1401 - Earth Science for Non-Sci Maj (Lec/Lab)

General

Course Key
16408

Course Rubric
GEOL

Course Number
1401

Course Title
Earth Science for Non-Science Majors I (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Survey of geology, meteorology, oceanography, and astronomy. Lab activities will cover methods used to collect and analyze data in geology, meteorology, oceanography, and astronomy.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOL 1402 - Earth Science Non-Sci Maj II (Lec/Lab)

General

Course Key
16409

Course Rubric
GEOL

Course Number
1402

Course Title
Earth Science for Non-Science Majors II (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Extension of the study of geology, astronomy, meteorology and oceanography, focusing on natural resources, hazards and climate variability. Lab activities will focus on methods used to collect and analyze data related to natural resources, hazards and climate variability. Required Prerequisite:GEOL-1401 or GEOL-1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take GEOL-1401 or GEOL-1403;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

GEOL 1403 - Physical Geology (Lecture + Lab)

General

Course Key
16410

Course Rubric
GEOL

Course Number
1403

Course Title
Physical Geology (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Laboratory activities will cover methods used to collect and analyze earth science data.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOL 1403 - Physical Geology (Lecture/Lab) Honors

General

Course Key
16411

Course Rubric
GEOL

Course Number
1403

Course Title
Physical Geology (Lecture Lab) Honors

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Laboratory activities will cover methods used to collect and analyze earth science data.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOL 1404 - Historical Geology (Lecture + Lab)

General

Course Key
16412

Course Rubric
GEOL

Course Number
1404

Course Title
Historical Geology (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) A comprehensive survey of the history of life and major events in the physical development of Earth as interpreted from rocks and fossils. Laboratory activities will introduce methods used by scientists to interpret the history of life and major events in the physical development of Earth from rocks and fossils. Required Prerequisite: GEOL-1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take GEOL-1403;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

GEOL 1405 - Environmental Science (Lecture/Lab)

General

Course Key
16413

Course Rubric
GEOL

Course Number
1405

Course Title
Environmental Science (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3). A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. Lab activities will cover methods used to collect and analyze environmental data. (Students should not take both GEOL-1305 and GEOL-1405.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOL 1445 - Oceanography (Lecture + Lab)

General

Course Key
16414

Course Rubric
GEOL

Course Number
1445

Course Title
Oceanography (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Survey of oceanography and related sciences.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GEOL 1447 - Meteorology (Lecture + Lab)

General

Course Key
16415

Course Rubric
GEOL

Course Number
1447

Course Title
Meteorology (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Survey of meteorology and related sciences. May not be used as a prerequisite for GEOL-1404.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

GERS 1301 - Introduction to Gerontology

General

Course Key
12122

Course Rubric
GERS

Course Number
1301

Course Title
Introduction to Gerontology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of the social, psychological, and biological changes that accompany aging. Focuses on the implications of these changes for the individual, as well as for the larger society.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Differentiate the multi-disciplinary aspect of theory, research, and practice in gerontology; articulate the implications of aging in American society; interpret the demographics of aging; and identify cultural aspects of aging.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of theories and research on adult development and aging by
    a. defining gerontology, the normal aspects of aging, and comprehending myths and stereotypes about aging;
    b. explaining the forces of development, developmental influences, culture, and ethnicity along with core issues in development;
    c. examining measurement in adult development and aging research;
    d. integrating findings from different studies while conducting research ethically about aging.
2. Demonstrate an understanding of physical changes among aging clients by
    a. discovering changes in skin, hair, voice, body build, mobility, and understanding the psychological implications of these changes;
    b. explaining sensory system changes including vision, hearing, somethesia, taste, and smell;
    c. using efficient learning techniques to acquire and apply new knowledge and skills to understand the basic changes in vital functions, the reproductive system, and autonomic nervous system of aging adults.
3. Demonstrate an understanding of longevity, health, mental health, and functioning of aging adults by
    a. exploring average and maximum longevity while defining genetic and environmental factors in average longevity;
    b. describing ethnic, gender, and international differences in average longevity;
    c. identifying health and illness, quality of life, changes in the immune system, chronic and acute disease, and the role of stress in longevity;
    d. recognizing and describing mental health issues faced by the aging population in current society;
    e. explaining how mental illness can be a result of substance abuse issues;
    f. exploring functional health and disability by determining functional health status, causes of functional limitations, and disability in older adults.
4. Demonstrate understanding and empathy regarding relationships in aging adults by
    a. identifying social, familial, and community support for the aging;
    b. defining how networks shape the transition of older adults;
    c. understanding lifestyles and love relationships such as singlehood, cohabitation, marriage, divorce, remarriage, widowhood, and how these relationships impact psychological well-being of aging adults.
5. Demonstrate an understanding of work, leisure, and retirement while focusing on the implications of these for aging adults by
    a. describing the meaning of work, revisiting occupational choices, and job satisfaction for the aging;
    b. recognizing occupational transitions, occupational insecurity, and coping with unemployment;
    c. exploring various types of leisure activities, developmental changes in leisure, and consequences of leisure activities;
    d. identifying retirement and work in late life while exploring the adjustment to retirement, new employment, and volunteering.
6. Demonstrate an understanding of aging in economic realms and environmental interactions by
    a. describing Social Security, Medicare, and private pensions that affect the aging;
    b. identifying lifestyles of aging adults living in poverty and the quality of life of these individuals;
    c. exploring changes in living environments: community options, nursing homes, home modifications, the decision-making processes, and implications of making these changes.

GERS 1342 - Aging and Mental Health

General

Course Key
13650

Course Rubric	Course Number	Course Title
GERS	1342	Aging and Mental Health

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Examination of current issues relating to mental health of older adults. Includes the theoretical and empirical foundations relevant to the psychological study of older adults.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the impact of mental health on the quality of life of older persons; assess mental health of older persons; implement intervention techniques; and identify contributions the older person brings to the care giving partnership.

Upon successful completion of this course, students will:

1. Express an understanding of the impact of mental health issues on the aging population and their quality of life by
    a. defining the foundation of mental health and social services practice with the aging;
    b. recognizing the context of human services practice with the aging population;
    c. understanding the theories of the aging process.
2. Recognize the models of mental health in later life by
    a. understanding the psychodynamic, cognitive-behavioral, stress and coping, and family systems models;
    b. exploring the relationship between aging, physical health, and mental health;
    c. defining the psychosocial adjustments to aging.
3. Explore differential assessments of cognitive and emotional problems of the aging population by
    a. understanding successful and healthy aging;
    b. identifying and describing cognitive disorders;
    c. identifying and exploring common psychiatric disorders, especially those related to suicide and substance use disorder among the aging.
4. Learn case management models and client referral process and apply to clinical situations by
    a. understanding appropriate diagnostic tools;
    b. demonstrating an ability to administer tools in order to determine general treatment plans and referrals as needed;
    c. identifying effective care coordination.
5. Explore appropriate care options for the aging individual with mental illness and other special needs by
    a. assessing the family's ability to cope and provide care for the individual;
    b. monitoring and evaluating intervention strategies and outcomes appropriate to needs of aging clients from diverse populations through empirical observation;
    c. identifying appropriate placement options for aging individuals with cognitive decline and/or psychological impairments;
    d. understanding and responding to legal and ethical issues related to informed consent, personal capacity, elder abuse, and caregiver abuse, while defining proper reporting protocol.

GISC 1402 - Understanding Geographic Inform Systems

General

Course Key
7542

Course Rubric	Course Number	Course Title
GISC	1402	Understanding Geographic Information Systems

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Theory and application of geographic information science (GIS). Includes an overview of the general principles of GIS and practical experience in its use.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Create, obtain, and evaluate data; demonstrate implementation and management of a GIS project; and use Map Projections. Discuss the history, purpose, and parts of a map; integrate data (vector, tabular, and raster) in the creation of a GIS application for business; use ArcGIS; and identify GIS career options.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Determine data compatibility (projection), perform data conversion, populate feature attributes.
3. Maintain GIS Data.
    a. Convert data between formats.
4. Conduct spatial/non-spatial analysis.
    a. Preprocess geographic data (generalize, subset).
    b. Perform geoprocessing through clipping, buffering, overlay, etc.
    c. Interpret data results.
    d. Develop SQL expressions and run queries.
5. Generate GIS products.
    a. Create printed cartographic output.
    b. Create analysis report.
    c. Create tables.
    d. Create charts.
    e. Distribute digital and hard copy products.
    f. Create 3D/4D representations.
6. Develop software applications.
    a. Create map templates for cartographic output.
7. Manage GIS data.
    a. Organize file structure (e.g. create directories, perform data and directory housekeeping).
8. Perform administrative tasks.
    a. Participate in GIS awareness events such as presentations, conferences and user groups.
    b. Apply a code of ethics to geospatial professionals.

GISC 2264 - Practicum/Field Experience-Cartography

General

Course Key
15276

Course Rubric
GISC

Course Number
2264

Course Title
Practicum - Cartography

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Required Prerequisites: GISC-1402 and GISC-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

take gisc-1402 gisc-2401
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): GISC 1402 and GISC 2401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Determine data compatibility (projection), perform data conversion, populate feature attributes.
3. Maintain GIS data.
    a. Convert data between formats.
4. Conduct spatial/non-spatial analysis.
    a. Interpret data results.
    b. Develop SQL expressions and run queries.
5. Generate GIS products.
    a. Create printed cartographic output.
    b. Create tables.
6. Develop software applications.
    a. Create map templates for cartographic output.
7. Manage GIS data.
    a. Organize file structure (e.g. create directories, perform data and directory housekeeping).
8. Perform administrative tasks.
    a. Create formal and informal communications using email, phone, listservs, social media, and written reports.
    b. Coordinate GIS projects including cost estimates, timelines, and budgets.
    c. Prepare and maintain contracts. Maintain equipment and office supplies.
    d. Provide internship supervision for students and new workers.
    e. Participate in GIS awareness events such as presentations, conferences and user groups.
    f. Apply a code of ethics to geospatial professionals.
9. Pursue professional development.
    a. Participate in professional conferences using both oral and written communications.
    b. Continue professional education through credit and/or noncredit courses, technical training and informal education, such as online courses.

GISC 2401 - Data Acquisition & Analysis in GIS

General

Course Key
15273

Course Rubric	Course Number	Course Title
GISC	2401	Data Acquisition and Analysis in Geographic Information Systems (GIS)

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Study of the management of geographic information, system life cycles, and costs and benefits. Includes institutional issues such as data providers, data management, combination of attribute and graphical data, information storage and access, Texas and national standards for spatial data; and applications of GIS for data modeling and analysis. Required Prerequisite/Co-Requisite(s): GISC-1402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required Requisites

10
A Requirement block where all subrequirements are required

take gisc-1402
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): GISC 1402

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the purpose of metadata; outline national and international data infrastructure and census data; summarize how to select and evaluate data according to source and quality; and collect and analyze metadata sets for a project. Formulate geographic-based database queries; establish an audit trail; use geographic information in decision making; design a data acquisition project; and utilize datums, coordinate systems, and mapping projections.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Develop (and document with metadata) database(s) including: defining geometry, attributes, relationships, topology rules, feature behaviors such as types and domains, incorporating data schema models.
    c. Determine data compatibility (projection), perform data conversion, populate feature attributes.
    d. Perform both COGO, and on screen digitization with attribution.
    e. Collect field attribute and location data via GPS (Tablet PC/PDA).
    f. Geocode data.
    g. Perform quality control (QC) and quality assurance (QA) of GIS databases.
3. Create image data.
    a. Scan hard copy images into digital format.
    b. Geo-reference digital imagery.
    c. Rectify images to meet data standards.
    d. constructing a valid query statement (1a, 1b, 2c).
4. Maintain GIS data.
    a. Develop procedures and schedules for data maintenance.
    b. Maintain data QA/QC through update operations: (add/delete/change).
    c. Convert data between formats.
    d. Perform database performance tuning through compression, indexing, etc.
5. Conduct spatial/non-spatial analysis.
    a. Interpret data results.
    b. Develop SQL expressions and run queries.
6. Generate GIS products.
    a. Create printed cartographic output.
    b. Create tables.
    c. Generate mailing labels, logos, posters, etc.
    d. Distribute digital and hard copy products.
    e. Create 3D/4D representations.
7. Develop software applications.
    a. Create map templates for cartographic output.
8. Manage GIS data.
    a. Establish data custodianship and distribute and assign database permissions according to organizational policies.
    b. Organize file structure (e.g. create directories, perform data and directory housekeeping).
    c. Perform data maintenance through archival functions.
9. Perform administrative tasks.
    a. Participate in GIS awareness events such as presentations, conferences and user groups.
    b. Apply a code of ethics to geospatial professionals.

GISC 2402 - GIS Design with Raster Analysis

General

Course Key
15274

Course Rubric	Course Number	Course Title
GISC	2402	Geographic Information Systems (GIS) Design with Raster Analysis

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Raster/remote sensing principles, technologies, and applications. Emphasizes processing raster imagery into useful information to be used in a GIS. Includes geo-referencing and image classification. Student final project will be demonstrating raster and remote sensing techniques. Required Prerequisite/Co-Requisite(s): GISC-1402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required Requisites

10
A Requirement block where all subrequirements are required

Take gisc-1402
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): GISC 1402

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Create new geographic and tabular data; design map layouts to demonstrate analysis techniques; identify advanced labeling procedures; and use advanced projections and coordinate systems. Create charts and graphs of analysis results; identify advanced concepts of geographic data storage; use linear networks and topology; design legends; design a GPS data collection project; use custom symbols; and design queries to manipulate data sets.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Determine data compatibility (projection), perform data conversion, populate feature attributes.
3. Create image data.
    a. Perform image analysis (classification).
4. Maintain GIS data.
    a. Convert data between formats.
    b. Perform database performance tuning through compression, indexing, etc.
5. Conduct spatial/non-spatial analysis.
    a. Create analysis models through flowcharts and processes.
    b. Perform quality control and assurance.
    c. Interpret data results.
    d. Develop SQL expressions and run queries.
6. Generate GIS products.
    a. Create printed cartographic output.
    b. Create analysis report.
    c. Create tables.
    d. Create charts.
    e. Distribute digital and hard copy products.
    f. Create 3D/4D representations.
7. Develop software applications.
    a. Create map templates for cartographic output.
8. Manage GIS data.
    a. Organize file structure (e.g. create directories, perform data and directory housekeeping).
9. Perform administrative tasks.
    a. Participate in GIS awareness events such as presentations, conferences and user groups.
    b. Apply a code of ethics to geospatial professionals.

GISC 2404 - Geog Inform Systems Design Vector Analy

General

Course Key
15275

Course Rubric	Course Number	Course Title
GISC	2404	Geographic Information Systems (GIS) Design with Vector Analysis

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Using GIS as a problem solving tool from the first stages of designing an analysis project, through the data collection and manipulation phase, to the final phase of presenting the project. Required Prerequisite/Co-Requisite(s): GISC-1402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required Requisites

10
A Requirement block where all subrequirements are required

Take GISC-1402
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): GISC 1402

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate proper operation of industry-standard software; create new tables; identify basic GIS concepts; and design map layouts. Use map scales, legends, and projections; identify classification methods; define continuous and discrete data types; and manipulate data in tables. Create graphs; describe topological data structures; design analysis projects; describe spatial relationships of near and far, inside/outside, and adjacent; use values to determine most/least and density; and discuss the importance of mapping change over time.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Determine data compatibility (projection), perform data conversion, populate feature attributes.
3. Maintain GIS data.
    a. Convert data between formats.
    b. Perform database performance tuning through compression, indexing, etc.
4. Conduct spatial/non-spatial analysis.
    a. Create analysis models through flowcharts and processes.
    b. Preprocess geographic data (generalize, subset).
    c. Perform geoprocessing through clipping, buffering, overlay, etc.
    d. Generate descriptive and spatial statistics.
    e. Perform quality control and assurance.
    f. Interpret data results.
    g. Develop SQL expressions and run queries.
5. Generate GIS products.
    a. Create printed cartographic output.
    b. Create analysis report.
    c. Create tables.
    d. Create charts.
    e. Distribute digital and hard copy products.
    f. Create 3D/4D representations.
6. Develop software applications.
    a. Create map templates for cartographic output.
7. Manage GIS data.
    a. Organize file structure (e.g. create directories, perform data and directory housekeeping).
8. Perform administrative tasks.
    a. Participate in GIS awareness events such as presentations, conferences and user groups.
    b. Apply a code of ethics to geospatial professionals.

GISC 2411 - Geographic Information Syst (GIS) App

General

Course Key
7809

Course Rubric	Course Number	Course Title
GISC	2411	Geographic Information Systems (GIS) Applications

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Application of GIS technology to real workplace applications from public and private sectors. Completion of Global Positioning Systems (GPS) fieldwork required for lab exercises.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Relate the use of GIS for infrastructure management; recognize the meaning of accuracy and precision in different applications; use GIS/GPS for infrastructure management; and complete a real world project. Create presentations of geographic information; reduce digital field data to produce final plans and reports; write technical reports which will accompany the presentation of the geographic information; and produce finished reports on various printers and plotters.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Determine data compatibility (projection), perform data conversion, populate feature attributes.
    c. Collect field attribute and location data via GPS (Tablet PC/PDA).
    d. Geocode data.
3. Maintain GIS data.
    a. Perform data layer updates and update metadata (imagery/themes).
    b. Convert data between formats.
4. Conduct spatial/non-spatial analysis.
    a. Create scripts.
    b. Interpret data results.
    c. Develop SQL expressions and run queries.
5. Generate GIS products.
    a. Create printed cartographic output.
    b. Create analysis report.
    c. Create tables.
    d. Generate mailing labels, logos, posters, etc.
    e. Distribute digital and hard copy products.
    f. Create 3D/4D representations.
6. Develop software applications.
    a. Define user software needs and determine application design format (hardware platform and programming language).
    b. Create customized software application solution.
    c. Create map templates for cartographic output.
    d. Perform quality control and assurance for applications, such as beta testing.
    e. Create help files and support documentation.
7. Manage GIS data.
    a. Establish data custodianship and distribute and assign database permissions according to organizational policies.
    b. Organize file structure (e.g. create directories, perform data and directory housekeeping).
8. Provide technical support.
    a. Resolve user technical problems.
    b. Assist in writing technical guides for GIS applications.
    c. Provide technical training for end-users.
9. Perform administrative tasks.
    a. Participate in GIS awareness events such as presentations, conferences and user groups.
    b. Apply a code of ethics to geospatial professionals.

GISC 2420 - Intermediate Geographic Info Systems

General

Course Key
15277

Course Rubric	Course Number	Course Title
GISC	2420	Intermediate Geographic Information Systems (GIS)

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). This course focuses on the study of spatial data structures and the display, manipulation, and analysis of geographic information. Students will study the technical aspects involved in spatial data handling, analysis and modeling. Instruction will include theories and procedures associated with the implementation and management of GIS projects. A variety of GIS software packages will be used in the laboratory. Required Prerequisite: GISC-1402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take gisc-1402
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): GISC 1402

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the terms, concepts, commands, and procedures of Geographic Information Systems software; import, generate and project spatial data sets; obtain spatial data from available sources; demonstrate topological editing; and develop tables, plots, and thematic map compositions.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Develop (and document with metadata) database(s) including: defining geometry, attributes, relationships, topology rules, feature behaviors such as types and domains, incorporating data schema models.
    c. Determine data compatibility (projection), perform data conversion, populate feature attributes.
    d. Perform quality control (QC) and quality assurance (QA) of GIS databases.
3. Maintain GIS data.
    a. Develop procedures and schedules for data maintenance.
    b. Maintain data QA/QC through update operations: (add/delete/change).
    c. Convert data between formats.
    d. Perform database performance tuning through compression, indexing, etc.
4. Conduct spatial/non-spatial analysis.
    a. Perform quality control and assurance.
    b. Interpret data results.
    c. Develop SQL expressions and run queries.
5. Generate GIS products.
    a. Create printed cartographic output.
    b. Create tables.
    c. Distribute digital and hard copy products.
6. Develop software applications.
    a. Create map templates for cartographic output.
7. Manage GIS data.
    a. Establish data custodianship and distribute and assign database permissions according to organizational policies.
    b. Organize file structure (e.g. create directories, perform data and directory housekeeping).
8. Provide technical support.
    a. Resolve user technical problems.
    b. Assist in writing technical guides for GIS applications.
    c. Provide technical training for end-users.
9. Perform administrative tasks.
    a. Participate in GIS awareness events such as presentations, conferences and user groups.
    b. Apply a code of ethics to geospatial professionals.
10. Pursue professional development.
    a. Participate in professional conferences using both oral and written communications.
    b. Continue professional education through credit and/or noncredit courses, technical training and informal education, such as online courses.

GISC 2435 - Programming for GIS

General

Course Key
15278

Course Rubric	Course Number	Course Title
GISC	2435	Programming for Geographic Information Systems (GIS)

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Focuses on the use of programming languages to customize and expand the capability of GIS applications. Instruction will include object-oriented and component programming. Students will also design their own Graphical User Interface (GUI). Required Prerequisites: COSC-1436 and GISC-1402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take COSC-1436 gisc-1402
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): COSC 1436 and GISC 1402

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe and understand basic programming for GIS applications; and perform programming for GIS customizations.

Upon successful completion of this course, students will:

1. Apply conceptual foundations for GIS tasks and projects.
    a. Think critically and spatially to analyze and evaluate patterns in places and time frames.
    b. Choose and apply appropriate map scales and coordinate systems.
    c. Apply geospatial technology (GIS, remote sensing, GNSS) to solve problems.
    d. Apply principles of geography to projects (human-environment interaction, time-space geography, Tobler's First Law of Geography).
2. Create and/or acquire GIS data.
    a. Define the data requirements, research sources of available data, and purchase data from reputable source.
    b. Determine data compatibility (projection), perform data conversion, populate feature attributes.
3. Maintain GIS data.
    a. Convert data between formats.
4. Conduct spatial/non-spatial analysis.
    a. Create analysis models through flowcharts and processes.
    b. Create scripts.
    c. Perform geoprocessing through clipping, buffering, overlay, etc.
    d. Interpret data results.
    e. Develop SQL expressions and run queries.
5. Generate GIS products.
    a. Create printed cartographic output.
    b. Create tables.
6. Develop software applications.
    a. Define user software needs and determine application design format (hardware platform and programming language).
    b. Create customized software application solution.
    c. Create map templates for cartographic output.
    d. Perform quality control and assurance for applications, such as beta testing.
    e. Create help files and support documentation.
7. Manage GIS data.
    a. Organize file structure (e.g. create directories, perform data and directory housekeeping).
8. Provide technical support.
    a. Resolve user technical problems.
    b. Install and maintain software including service packs.
    c. Assist in writing technical guides for GIS applications.
    d. Provide technical training for end-users.
9. Perform administrative tasks.
    a. Participate in GIS awareness events such as presentations, conferences and user groups.
    b. Apply a code of ethics to geospatial professionals.
10. Pursue professional development.
    a. Participate in professional conferences using both oral and written communications.
    b. Continue professional education through credit and/or noncredit courses, technical training and informal education, such as online courses.

GOVT 2305 - Federal Govrnment (Federal Const & Top)

General

Course Key
16420

Course Rubric
GOVT

Course Number
2305

Course Title
Federal Government (Federal Constitution & Topics)

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Required Prerequisite: TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

GOVT 2305 - Federal Govrnment (Fed Cons/Top) Honors

General

Course Key
16421

Course Rubric
GOVT

Course Number
2305

Course Title
Federal Government (Federal Constitution & Topics) Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Required Prerequisite: TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

GOVT 2306 - Texas Govrnment (Texas Constitutin/Top)

General

Course Key
16048

Course Rubric
GOVT

Course Number
2306

Course Title
Texas Government (Texas Constitution & Topics)

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Origin and development of the Texas Constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. Required Prerequisite:TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

GOVT 2306 - Texas Government (Texas Const/Top) Hons

General

Course Key
16049

Course Rubric
GOVT

Course Number
2306

Course Title
Texas Government (Texas Constitution & Topics) Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)Origin and development of the Texas Constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. Required Prerequisite: TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HALT 1301 - Principles of Horticulture

General

Course Key
857

Course Rubric	Course Number	Course Title
HALT	1301	Principles of Horticulture

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1). An overview of the horticulture industry, plant science, terminology, classification, propagation, environmental responses, and careers and opportunities in the field of horticulture.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the fundamentals of plant science; explain the effect of environmental factors on plant growth; contrast the methods of plant production; and identify the various facets of the horticulture industry and career opportunities.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the relationship of agriculture and horticulture by
    a. listing the various fields of agriculture and horticulture (1a);
    b. listing career opportunities in the horticulture field (1a);
    c. explaining the relationship of agriculture, horticulture, botany, and the other sciences (1b).
2. Demonstrate an understanding of the classification of plants by
    a. listing the taxonomic units of the binomial system of nomenclature (1b);
    b. defining the taxonomic units of the binomial system of nomenclature (1b);
    c. applying the binomial system of nomenclature (1b, 2c).
3. Demonstrate an understanding of plant anatomy by
    a. listing plant cells and tissues (1b);
    b. explaining functions of plant cells and tissues (1b);
    c. identifying plant cells and tissues (1b, 2c).
4. Demonstrate an understanding of plant morphology by
    a. listing plant morphological structures (1b);
    b. explaining function(s) of morphological structures (1b);
    c. identifying plant morphological structures (2c).
5. Demonstrate an understanding of basic plant growth and development by
    a. listing functions of growth and development (1b);
    b. explaining functions of growth and development (1b);
    c. explaining the manipulation of growth and development (1b, 2c).
6. Demonstrate an understanding of how light affects plant growth by
    a. listing the factors of light that affect plant growth (1b);
    b. explaining how light affects plant growth (1b);
    c. explaining the manipulation of light to maximize plant growth (1b, 2c).
7. Demonstrate an understanding of how temperature affects plant growth by
    a. listing factors of temperature that affect plant growth (1b);
    b. explaining how temperature affects plant growth (1b);
    c. explaining manipulation of temperature to maximize plant growth (1b, 2c).
8. Demonstrate an understanding of how water affects plant growth by
    a. listing the factors of water that affect plant growth (1b);
    b. explaining the effects of water on plant growth (1b);
    c. explaining the manipulation of water to maximize plant growth (1b, 2c).
9. Demonstrate an understanding of how mineral nutrients affect plant growth by
    a. listing essential nutrients (1b);
    b. explaining functions of elements (1b);
    c. explaining effects of pH on plant nutrition (1b);
    d. explaining how nitrogen reacts in the soil and in plants (1b).
10. Demonstrate an understanding of the importance of soil on plant growth by
    a. listing the various factors of soils (1b);
    b. explaining the factors of soils (1b);
    c. explaining the modification of soils (1b, 2c).
11. Demonstrate an understanding of fertilizers by
    a. listing properties of fertilizers (1b);
    b. listing fertilizer application methods (1b);
    c. explaining fertilizer usage (1b);
    d. calculating fertilizer application rates (1b, 2c).

HALT 1303 - Herbaceous Plants

General

Course Key
859

Course Rubric
HALT

Course Number
1303

Course Title
Herbaceous Plants

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). A study of herbaceous plant material. Topics include practices and procedures used in the identification, growth, propagation, maintenance, and utilization of herbaceous plants in the horticulture industry. Recommended Prerequisite: HALT 1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify herbaceous plants at various growth stages; explain methods used to propagate herbaceous plants; and describe the cultural requirements for care and use of herbaceous plants.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Recognize herbaceous plants by
    a. identifying plant families (2c);
    b. identifying plants by scientific names (2c);
    c. identifying plants by common names (2c).
2. Demonstrate an understanding of seed germination by
    a. explaining seed germination (1b);
    b. comparing germination methods (1b);
    c. calculating seed requirements (1b, 2c);
    d. identifying germination requirements (2c);
    e. preparing seeds for germination (2c, 2e);
    f. sowing seeds (2b, 2c, 2e).
3. Demonstrate an understanding of herbaceous plant production by
    a. explaining transplanting procedures (1b);
    b. explaining production procedures (1b);
    c. comparing production methods (1b, 2c);
    d. transplanting seedlings and plugs (2c, 2e);
    e. labeling plants (2b, 2c, 2e);
    f. producing crop(s) (2b, 2c, 2e).
4. Apply knowledge of herbaceous plants by
    a. explaining cultural requirements (1b);
    b. explaining plant habits (1b);
    c. explaining plant uses (1b);
    d. suggesting plants to clients (1b).
5. Demonstrate an understanding of plant problems by
    a. listing plant problems (1a);
    b. explaining causes (1b);
    c. explaining solutions (1b, 2c).
6. Demonstrate an understanding of the marketing of bedding plants by
    a. listing outlet types (1a);
    b. explaining marketing methods (1b);
    c. marketing bedding plants (1b, 2a, 2b, 2c).

HALT 1307 - Plant Diseases

General

Course Key
15220

Course Rubric
HALT

Course Number
1307

Course Title
Plant Diseases

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). An overview of the factors causing plant diseases. Topics include physiological disorders, fungi, bacteria, viruses, mollicutes, nematodes, parasitic plants, abiotic factors, and control methods. Recommended prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Differentiate between biotic diseases and abiotic disorders; identify common plant disease symptoms; and recommend disease control measures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the historical and economic impact of plant diseases by
    a. listing plant disease epidemics of great significance (1a, 1b);
    b. explaining the historical and sociological impact of major plant disease epidemics (2c, 2d);
    c. explaining the historical and current economic impacts of plant diseases (2c, 2d).
2. Use plant pathology terminology properly by
    a. explaining plant disease (2c);
    b. defining plant pathology terms (2c);
    c. explaining plant pathology concepts (2c).
3. Recognize plant diseases by
    a. differentiating between pathogenic and nonpathogenic plant diseases (1b, 2c);
    b. explaining plant disease damage (2c);
    c. describing plant disease symptoms (1b);
    d. recognizing plant disease symptoms (1b, 2c);
    e. listing common names of plant diseases (1a, 1b).
4. Recognize plant pathogens by
    a. distinguishing among plant pathogens (1b, 2c);
    b. explaining plant pathogen life cycles (2c);
    c. recognizing plant pathogen structures (1b, 2c);
    d. explaining dissemination methods (2c);
    e. explaining penetration and infection methods (2c);
    f. listing scientific names of pathogens causing plant diseases (1a, 1b).
5. Recommend control measures for plant diseases by
    a. listing control measures (1a, 1b);
    b. explaining sanitation methods (2c);
    c. explaining cultural control methods (2c).

HALT 1309 - Interior Plants

General

Course Key
15221

Course Rubric
HALT

Course Number
1309

Course Title
Interior Plants

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Instruction in the identification and classification of the plants used in home and commercial interiorscapes. Topics include design characteristics for interiorscapes and environmental requirements of the plants. Recommended Prerequisite: HALT 1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify interior plants; develop care methods for specific plants; and identify production methods of interior plants.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the cultural requirements of plants in the interior environment by
    a. listing the light requirements for growing and maintaining plants (1b, 2c, 2d);
    b. listing the water requirements for growing and maintaining plants (1b, 2c, 2d);
    c. listing the temperature requirements for growing and maintaining plants (1b, 2c, 2d).
2. Demonstrate an understanding of methods of modifying the environment to accommodate the growth and maintenance of plants in the interior by
    a. measuring the light levels in interior environments (1b, 2c, 2e);
    b. measuring moisture levels of container media (1b, 2c, 2e);
    c. explaining the characteristics of container media (1b, 2c, 2d).
3. Demonstrate knowledge of pests of interior plants by
    a. identifying common insect pests (1b, 2c, 2d);
    b. identifying common diseases (1b, 2c, 2d);
    c. recommending control measures (1b, 2c, 2d, 2e).
4. Apply knowledge of plant taxonomy by
    a. identifying plant families (1b, 2c);
    b. identifying plant genera (1b, 2c);
    c. identifying plant species (1b, 2c).
5. Perform plant identifications by
    a. examining plant specimens (1b, 2c);
    b. identifying plant specimens using scientific and common names (1b, 2c);
    c. writing, spelling, and pronouncing plant scientific and common names (1b, 2c).

HALT 1311 - Shrubs, Vines, and Groundcovers

General

Course Key
15222

Course Rubric	Course Number	Course Title
HALT	1311	Shrubs, Vines, and Groundcovers

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Survey of the shrubs, vines, and groundcovers used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and use in the landscape. Recommended Prerequisite: HALT 1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify shrubs, vines, and groundcovers in various growth stages; describe morphological, anatomical, or other botanical features; and explain the cultural requirements of shrubs, vines, and groundcovers.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of plant anatomy by
    a. listing anatomical features of plants (1b);
    b. explaining the functions of plant tissues (1b);
    c. identifying anatomical regions of plants (2c).
2. Demonstrate an understanding of plant morphology by
    a. listing plant morphological structures (1b);
    b. explaining function(s) of plant morphological structures (1b);
    c. identifying plant morphological structures (2c).
3. Apply knowledge of plant taxonomy by
    a. identifying plant families (2c);
    b. identifying plant genera (2c);
    c. identifying plant species (2c).
4. Perform plant identifications by
    a. examining plant specimens (2c);
    b. identifying plant specimens using scientific and common names (2c);
    c. demonstrating correct writing, spelling, and pronunciation of plant scientific and common names (2c).
5. Describe the use of plants in the landscape by
    a. listing the physical features (1b, 2c);
    b. listing the aesthetic properties (1b, 2c);
    c. explaining the cultural requirements (1b, 2c);
    d. explaining pest susceptibility and resistance (1b, 2c).
6. Recommend plants for various landscape situations by
    a. selecting drought tolerant plants (1b, 2c);
    b. selecting native plants (1b, 2c);
    c. selecting adapted plants (1b, 2c);
    d. selecting pest resistant plants (1b, 2c);
    e. selecting dwarf and other plants suited to small landscapes (1b, 2c);
    f. selecting plants with desired aesthetic characteristics (1b, 2c).

HALT 1313 - Horticultural Entomology

General

Course Key
15634

Course Rubric
HALT

Course Number
1313

Course Title
Horticultural Entomology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). An overview of insects and related organisms with an emphasis on destructive, predaceous, parasitic, and beneficial species. Topics include insect taxonomy, anatomy, morphology, physiology, and the application of Integrated Pest Management (IPM), mechanical, biological, and chemical control measures. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Recognize insect morphological and anatomical features; classify insects; and describe methods for controlling insect pests based on entomological principles.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the importance of insects in the human endeavor by
    a. listing the harmful effects of insects (1a, 1b);
    b. listing the benefits of insects (1a, 1b);
    c. explaining why insects have been the most successful life form on earth (2c, 2d).
2. Recognize insect body structures by
    a. identifying external insect body structures (1b, 2c, 2d);
    b. explaining the functions of external body structures (1b, 2c, 2d);
    c. identifying internal body structures (1b, 2c, 2d);
    d. explaining the functions of internal structures (1b, 2c, 2d).
3. Demonstrate an understanding of the life cycles of insects by
    a. listing the types of metamorphosis (1a, 1b);
    b. explaining the types of metamorphosis (1b, 2c);
    c. classifying insects according to metamorphosis (1b, 2c, 2d).
4. Utilize taxonomy by
    a. listing arthropod characteristics (1a, 1b);
    b. identifying arthropod classes (1b, 2c, 2d);
    c. identifying entomologically important molluscans (1b, 2c, 2d);
    d. identifying arachnid orders (1b, 2c, 2d);
    e. identifying insect orders (1b, 2c, 2d);
    f. classifying insects as beneficial or destructive (1b, 2c, 2d).
5. Apply knowledge of entomology by
    a. collecting insects (1b, 1c, 2a, 2c, 2e);
    b. assembling a proper insect collection (1b, 1c, 2a, 2c, 2e);
    c. identifying insects (1b, 2c, 2d);
    d. using entomological terminology properly (1b, 2c).
6. Demonstrate an understanding of insect control methods by
    a. listing insect control methods (1a, 1b);
    b. listing Integrated Pest Management (IPM) methods (1b);
    c. defining IPM terminology (1b, 2c, 2d, 2e);
    d. explaining IPM methods (1b, 2c, 2d, 2e).

HALT 1317 - Trees

General

Course Key
15223

Course Rubric
HALT

Course Number
1317

Course Title
Trees

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). A study of the trees used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and native trees in the landscape. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify trees in various growth stages; describe morphological, anatomical, or other botanical features; and explain cultural requirements of trees.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of tree anatomy by
    a. listing anatomical features of trees (1b);
    b. explaining the functions of tree tissues (1b);
    c. identifying anatomical regions of trees (2c).
2. Demonstrate an understanding of tree morphology by
    a. listing tree morphological structures (1b);
    b. explaining function(s) of tree morphological structures (1b);
    c. identifying tree morphological structures (2c).
3. Apply knowledge of tree taxonomy by
    a. identifying tree families (2c);
    b. identifying tree genera (2c);
    c. identifying tree species (2c).
4. Perform tree identifications by
    a. examining tree specimens (1b, 2c);
    b. identifying tree specimens using scientific and common names (2c);
    c. demonstrating correct writing, spelling, and pronunciation of tree scientific and common names (2c).
5. Describe the use of trees in the landscape by
    a. listing the physical features (1b, 2c);
    b. listing the aesthetic properties (1b, 2c);
    c. explaining the cultural requirements (1b, 2c);
    d. explaining pest susceptibility and resistance (1b, 2c).
6. Recommend trees for various landscape situations by
    a. selecting drought tolerant trees (1b, 2c);
    b. selecting native trees (1b, 2c);
    c. selecting adapted trees (1b, 2c);
    d. selecting pest resistant trees (1b, 2c);
    e. selecting dwarf and other trees suited to small landscapes (1b, 2c);
    f. selecting trees with desired aesthetic characteristics (1b, 2c).

HALT 1324 - Turfgrass Science and Management

General

Course Key
16477

Course Rubric
HALT

Course Number
1324

Course Title
Turfgrass Science and Management

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A survey of various species of warm and cool season grasses, including their uses, application, adaptability, environmental tolerances, anatomy, and physiological responses.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss turfgrass quality, selection, and adaptation; describe cultural practices of major cool and warm season turfgrasses; and examine turfgrass responses to different environmental conditions.

Upon successful completion of this course, students will:

1. Describe Turfgrass Species and Adaptability by
    a. Identifying major warm-season and cool-season turfgrass species by morphological and visual characteristics. (1b)
    b. Evaluating species adaptability to different soils, climates, and site conditions. (1b)
2. Demonstrate an understanding of Turfgrass Anatomy and Physiology by
    a. Describing the structures and functions of roots, stems, leaves, rhizomes, stolons, and seedheads. (1a)
    b. Explaining growth cycles and turfgrass physiological responses to stress such as drought, shade, temperature extremes, and traffic. (1a)
3. Demonstrate and understanding of Turfgrass Cultural Practices by
    a. Applying proper mowing practices, including recommended cutting heights for common turf species. (2e)
    b. Developing irrigation schedules using evapotranspiration data and species requirements. (2d)
    c. Preparing fertilization programs that account for nutrient needs, seasonal timing, and environmental impact. (2c)
4. Implement Integrated Turfgrass Management by
    a. Identifying common turfgrass pests, diseases, and weeds, and appropriate control strategies. (1a)
    b. Applying Integrated Pest Management (IPM) principles in turfgrass maintenance planning. (1b)
    c. Assessing soil compaction and recommended aeration and top-dressing methods. (2c)
5. Prioritize Environmental Stewardship by
    a. Proposing sustainable turfgrass practices that reduce water consumption, minimize chemical inputs, and enhance soil health. (2c)
    b. Evaluating case studies in golf courses, athletic fields, and residential or commercial landscapes. (2c)
6. Demonstrate Laboratory and Field Competencies by
    a. Collecting, preparing, and analyzing soil and turf samples for nutrient and pest diagnosis. (2c)
    b. Safely operating turfgrass maintenance equipment in lab or field settings. (2e)
    c. Preparing field reports with observations, problem diagnosis, and recommended management actions. (1b)
7. Communicate Effectively and Professionally by
    a. Producing written reports and delivering oral presentations on turfgrass management topics. (1a)
    b. Working collaboratively in field/lab teams and demonstrating professionalism in academic and applied settings. (1c)

HALT 1333 - Landscape Irrigation

General

Course Key
9602

Course Rubric	Course Number	Course Title
HALT	1333	Landscape Irrigation

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Coverage of irrigation systems including equipment, design, performance, and maintenance. Topics include residential and small business applications, troubleshooting, repair, and technological advances in irrigation systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the basic installation techniques used to install an irrigation system; discuss the separation of zones for turf areas, shrubs, groundcovers, and other plant groups; and prepare a design for an irrigation system.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the historical and current importance of landscape irrigation by
    a. describing past developments in irrigation (1a, 1b);
    b. explaining the significance of past developments on current systems and practices (1a, 1b).
2. Recognize the fundamentals of landscape irrigation by
    a. defining and using irrigation terminology (1b, 2c, 2d);
    b. listing local, state, and federal rules and laws regulating the irrigation industry in Texas (1b, 2c, 2d);
    c. calculating basic irrigation functions such as: flow rates, friction losses, pressure, pipe sizing, application rates, infiltration rates, percolation rates, etc. (1b, 2c, 2d, 2e).
3. Demonstrate knowledge of irrigation system components by
    a. identifying basic irrigation system components (1b, 2c, 2d);
    b. describing the function(s) of basic irrigation components (1b, 2c);
    c. identifying basic drip irrigation system components (1b, 2c, 2d);
    d. describing the function(s) of drip irrigation components (1b, 2c).
4. Recognize the importance of backflow mitigation by
    a. describing the functions of backflow prevention devices (1b, 2c);
    b. explaining the importance of backflow prevention (1b, 2c, 2d);
    c. explaining the legal requirements for backflow prevention (1b, 2c, 2d);
    d. choosing proper backflow prevention devices for various situations (1b, 2c, 2d).
5. Design irrigation systems by
    a. choosing and placing sprinkler heads, choosing and placing proper size pipes, calculating flow rates, dividing system into zones, placing valves, specifying controller unit and backflow prevention, and other components to complete a residential irrigation system (1b, 1c, 2a, 2c, 2e);
    b. selecting and incorporating drip irrigation components into a system design (1b, 1c, 2a, 2c, 2e).
6. Install irrigation system components by
    a. operating tools and equipment commonly used to install irrigation systems (1b, 2c);
    b. placing and connecting components into a working irrigation system (1b, 2c).
7. Comprehend proper irrigation scheduling by
    a. explaining methods of scheduling irrigation times and lengths (1b, 2c, 2d);
    b. explaining the functions of various equipment used in scheduling and controlling irrigation times and durations (1b, 2c, 2d).
8. Demonstrate a working knowledge of the practice of landscape irrigation by
    a. describing the legal requirements for practicing landscape irrigation in Texas (1a, 1b, 2d);
    b. describing the procedures for obtaining an irrigator's license in Texas (1a, 1b).

HALT 1353 - Landscape Computer Design

General

Course Key
39

Course Rubric	Course Number	Course Title
HALT	1353	Landscape Computer Design

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). A course in computer-aided landscape design. Emphasis on the application of design concepts and techniques using software.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design landscape plans using computer software programs; and generate a report of all hardscape and softscape materials used in the design.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Manipulate CAD drawing settings by
    a. starting various CAD software (1b, 2c, 2e);
    b. setting drawing limits (1b, 2c, 2e);
    c. setting drawing units (1b, 2c, 2e);
    d. creating layers (1b, 2c, 2e);
    e. manipulating layers (1b, 2c, 2e);
    f. calculating scales (1b, 1c, 2e).
2. Manipulate CAD drawing views by
    a. dividing the monitor screen into viewports (1b, 2c, 2e);
    b. creating views, plan views, display 3D views, and employ User Coordinate Systems (UCS) (1b, 2c, 2e);
    c. saving views, plan views, display 3D views, and employ User Coordinate Systems (UCS) (1b, 2c, 2e).
3. Create 3D objects by
    a. drawing 3D primitives (1b, 2c, 2e);
    b. modifying 3D primitives (1b, 2c, 2e);
    c. creating 3D objects (1b, 2c, 2e).
4. Work with blocks by
    a. creating blocks (1b, 2c, 2e);
    b. inserting blocks (1b, 2c, 2e);
    c. using external references (1b, 2c, 2e).
5. Create a 3D landscape design by
    a. creating a landscape design (1b, 2a, 2c, 2d, 2e);
    b. performing advanced routines using CAD software (1b, 2c, 2e);
    c. performing a quantity takeoff (1b, 2a, 2c, 2d, 2e);
    d. performing shading and rendering of the drawing (1b, 2c, 2e);
    e. altering drawing to reflect the growth of plants (1b, 2c, 2e);
    f. plotting in model and paper space (1b, 2c, 2e).
6. Work with imaging software by
    a. importing photos of landscape projects (1b, 2c, 2e);
    b. altering photos of landscape projects (1b, 2c, 2e);
    c. designing a landscape image from photos (1b, 2a, 2c, 2d, 2e);
    d. performing advanced routines (1b, 2c, 2e).

HALT 1422 - Landscape Design

General

Course Key
47

Course Rubric
HALT

Course Number
1422

Course Title
Landscape Design

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). A study of the principles and elements of landscape design. Topics include client interview, site analysis, plan view, scale, plant selection, basic drawing and drafting skills, and plan preparation. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate procedures utilized in the development of a landscape plan; develop a landscape design; and perform a site analysis and incorporate the information into the final design.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the landscape design profession by
    a. explaining the need (1b);
    b. listing the various professions (1b);
    c. comparing the educational requirements, licensing, and duties of the various professions (2c).
2. Demonstrate an understanding of the measurement of angles by
    a. distinguishing acute, right, obtuse, and straight (1b);
    b. measuring angles with a protractor (1b);
    c. explaining the measurement of angles using CAD software (1b, 2c);
    d. measuring using CAD software (2e).
3. Demonstrate an understanding of the use of scales by
    a. selecting the proper scale (2e);
    b. measuring the length and width of objects (2c, 2e);
    c. measuring the diameter and radius of circles (2c, 2e).
4. Perform basic takeoffs from landscape designs by
    a. identifying basic geometric shapes (2c);
    b. calculating perimeter, area, and circumference of basic geometric shapes (1b, 2c);
    c. calculating the volume of basic geometric shapes (1b, 2c);
    d. calculating edging, mulch, media, and sod required (1b, 2c).
5. Demonstrate knowledge of the family inventory by
    a. explaining the need (1b);
    b. listing the information (2c);
    c. compiling a family inventory (2c).
6. Demonstrate knowledge of a site analysis by
    a. explaining the need (1b);
    b. listing the information (2c);
    c. conducting a site analysis (2c).
7. Demonstrate knowledge of contour lines and topography by
    a. listing the rules (1b);
    b. identifying topographic features (1b, 2c);
    c. explaining the effect of topography (1b);
    d. calculating slope ratio and percent slope (2c);
    e. drawing topographic profiles (2c).
8. Demonstrate knowledge of landscape design plants by
    a. listing the necessary information (1b);
    b. interpreting symbols used (1b, 2c);
    c. calculating the information (2c).
9. Demonstrate knowledge of the principles of landscape design by
    a. defining the various principles (1b);
    b. explaining the design principles (1b);
    c. integrating the design principles (1b, 2c).
10. Demonstrate knowledge of the outdoor room principles by
    a. listing the outdoor rooms (1b);
    b. explaining the components and functions (1b);
    c. designing outdoor rooms (1b, 2a, 2c).
11. Demonstrate knowledge of plan materials in landscape design by
    a. listing the characteristics of plants (1b);
    b. explaining how to properly integrate (1b);
    c. incorporating plant materials (1b, 2a, 2c).
12. Demonstrate knowledge of hardscape materials by
    a. listing the characteristics (1b);
    b. integrating hardscape materials (1b, 2c);
    c. designing outdoor stairs (1b, 2c).
13. Demonstrate knowledge of water conservation in the landscape by
    a. defining xeriscape (1b);
    b. explaining different methods (1b, 2c);
    c. integrating different methods (1b, 2a, 2c).
14. Demonstrate knowledge of how to reduce energy consumption through landscape by
    a. listing different methods (1b);
    b. explaining different methods (1b, 2c);
    c. incorporating different methods (1b, 2c).
15. Demonstrate knowledge of computer systems and CAD software by
    a. knowing the basic commands (2c);
    b. creating drawings (1b, 2c, 2e);
    c. drawing landscape designs (2a, 2c, 2e);
    d. annotating landscape designs (1b, 2c, 2e);
    e. using proper design elements (1b, 2c).

HALT 2301 - Arboriculture

General

Course Key
54

Course Rubric	Course Number	Course Title
HALT	2301	Arboriculture

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Fundamentals of woody plant physiology and growth including techniques and procedures utilized in making sound tree care decisions related to growth pest, and disease control. Topics include design principles of planning and maintenance for city streets, parks, and commercial and residential properties. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply woody plant physiology and growth to tree management and planting decisions; identify tree growth, insect and disease problems; establish a tree fertilization and pruning program; and analyze the site conditions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the principles of arboriculture by
    a. defining terms used in arboriculture (1a, 1b);
    b. explaining environmental contributions and benefits of trees in the landscape (1a, 1b, 2c);
    c. explaining the rules of arboriculture (1a, 1b, 2c).
2. Demonstrate knowledge of tree physiology by
    a. explaining the mechanisms involved in tree growth (1a, 1b, 2c);
    b. describing tree root growth processes (1a, 1b, 2c);
    c. describing the functions of anatomical and morphological structures of trees (1a, 1b, 2c);
    d. explaining the effects of wounding and tree responses (1a, 1b, 2c, 2d);
    e. explaining the effects of environmental factors on tree growth and development (1a, 1b, 2c, 2d).
3. Demonstrate knowledge of industry standards of tree establishment by
    a. explaining proper selection of tree species to fit various planting environments (1a, 1b, 2c, 2d);
    b. describing methods to properly prepare a planting site (1a, 1b, 2c, 2d);
    c. performing proper planting techniques (1a, 1b, 2c, 2d, 2e);
    d. explaining proper watering techniques (1a, 1b, 2c, 2d);
    e. describing proper tree fertilization strategies (1a, 1b, 2c, 2d).
4. Demonstrate knowledge of tree maintenance by
    a. describing proper pruning practices (1a, 1b, 2c, 2d);
    b. identifying tools used in tree care (1a, 1b, 2c, 2d);
    c. demonstrating proper pruning techniques (1a, 1b, 2c, 2d, 2e);
    d. explaining tree cabling procedures (1a, 1b, 2c, 2d);
    e. describing tree safety and climbing techniques (1a, 1b, 2c, 2d);
    f. tying knots commonly used in climbing (1a, 1b, 2c, 2d, 2e);
    g. using ropes and climbing equipment safely (1a, 1b, 2c, 2d, 2e);
    h. describing methods of protecting trees from lightning and other hazards (1a, 1b, 2c, 2d).
5. Demonstrate an understanding of pathological, physiological, entomological, and environmental problems of trees by
    a. identifying tree problems (1a, 1b, 2c, 2d);
    b. listing control options for tree problems (1a, 1b, 2a, 2c, 2d, 2e);
    c. recommending control options for tree problems (1a, 1b, 2a, 2c, 2d, 2e);
    d. describing diagnostic procedures (1a, 1b, 2c, 2d).
6. Perform tree evaluations by
    a. calculating tree appraisals and evaluations (1a, 1b, 2a, 2c, 2d, 2e);
    b. making tree hazard assessments (1a, 1b, 2a, 2c, 2d, 2e);
    c. performing a tree inventory (1a, 1b, 2a, 2c, 2d, 2e).

HALT 2307 - Horticultural Food Crops

General

Course Key
14421

Course Rubric	Course Number	Course Title
HALT	2307	Horticultural Food Crops

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A study of commercial and home cultivated food crops including various vegetables, fruits, and nuts. Topics address planting, maintenance, harvest, and storage of the various crops.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Implement a plan to design and plant a vegetable garden or small fruit orchard; organize a schedule to cultivate, fertilize, water, and harvest the garden or orchard; and discuss various types of gardens and their applications in both commercial and residential settings.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the current and historical importance of horticulture food crops by
    a. listing types of horticultural food crops (1a);
    b. distinguishing characteristics of horticulture food crops from other food crops (1a);
    c. explaining the significance of sustainable horticultural food crop production in both local and global contexts (1b).
2. Demonstrate knowledge of crops for food production by
    a. listing and describing vegetable crops and associated families (1b);
    b. listing and describing tree fruit/nut crops (1b);
    c. listing and describing other horticulture food crops (1b, 2c).
3. Demonstrate an understanding of food crop production systems by
    a. distinguishing production systems of both residential and commercial scales (1b);
    b. explaining fundamentals of site selection and establishment for food crops (1b);
    c. surveying various food crop growing systems and techniques (1b, 2c).
4. Demonstrate an understanding of vegetable production practices by
    a. recognizing specific cultural requirements of vegetable crops (1b);
    b. demonstrating hands-on production skills by growing vegetable crops from seed to harvest (1b);
    c. developing deeper understanding of vegetable production by engaging in field trips, case studies, and grower/farmer profiles (2c);
    d. understanding specific vegetable crops by family grouping (2c).
5. Demonstrate an understanding of fruit/nut production practices by
    a. recognizing specific cultural requirements of fruit/nut crops (1b);
    b. demonstrating hands-on production skills by growing fruit/nut crops (1b);
    c. developing deeper understanding of fruit/nut production by field trips, case studies, and grower/farmer profiles (2c);
    d. understanding specific fruit/nut crops (2c).
6. Demonstrate crop planning and informed decision-making by
    a. conducting real world site assessments and proper crop selection and placement (1b);
    b. designing garden and/or farm site, crop selection, establishment, cultivation, production plan, and rotation for multi-year hobby, homestead, and/or commercial use operation (1b);
    c. presenting farm/garden design to peers and experienced growers for discussion and constructive feedback (1b, 2c).
7. Demonstrate an understanding of sustainable soil/crop management by
    a. understanding soil health concerns and soil management options (1b);
    b. demonstrating ability to utilize soil/site characteristics to guide crop selection, planning, and establishment (1b);
    c. using proper irrigation, fertilization, tillage, pruning, pest and disease management, and other appropriate cultural practices (1b, 2c).
8. Demonstrate an understanding of current trends/sociological impacts by
    a. listing ways that food production is valued in society (1b);
    b. understanding the direct/indirect benefits of growing food crops (1b);
    c. explaining the increased demand for local food crop production (1b, 2c).
9. Demonstrate proper understanding of successful harvest and post-harvest practices for horticulture food crops by
    a. recognizing proper harvest timing and techniques (1b);
    b. understanding best practices for storage of various crops after harvest (1b);
    c. understanding post-harvest options for food crops such as fresh use, dried use, canning, fermentation, pickling, culinary uses, etc. (1b, 2c).

HALT 2308 - Greenhouse Management

General

Course Key
72

Course Rubric	Course Number	Course Title
HALT	2308	Greenhouse Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Fundamentals of greenhouse construction and operation. Topics include architectural styles, construction materials, environmental systems and controls, growing media, fertilizers, post harvest handling, marketing, and business management. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Compare and select architectural styles and materials for greenhouse construction; calculate heating, cooling, and light requirements and select appropriate equipment; and identify cultural and business methods necessary for crop production.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the greenhouse industry by
    a. listing historical developments of greenhouses and the industry (1b, 2c);
    b. explaining past developments in the industry (1b, 2c, 2d);
    c. explaining current developments and future trends in the greenhouse industry (1b, 2c, 2d).
2. Demonstrate an understanding of greenhouse architecture by
    a. identifying greenhouse architectural styles (1b, 2c, 2e);
    b. explaining the advantages and disadvantages of greenhouse styles (1b, 2c, 2e);
    c. identifying greenhouse structural members (1b, 2c, 2e);
    d. explaining the advantages and disadvantages of framework materials (1b, 2c, 2e);
    e. identifying greenhouse glazing materials (1b, 2c, 2e);
    f. explaining the advantages and disadvantages of glazing materials (1b, 2c, 2e).
3. Demonstrate knowledge of growing systems by
    a. identifying different bench and growing systems (1b, 2c, 2e);
    b. explaining the advantages and disadvantages of different bench and growing systems (1b, 2c, 2e);
    c. identifying container types and materials (1b, 2c, 2e);
    d. calculating container volume (1b, 2c, 2e);
    e. calculating the spacing of containers (1b, 2c, 2e).
4. Demonstrate knowledge of greenhouse heating systems by
    a. comparing the advantages and disadvantages of various fuels (1b, 2c, 2e);
    b. identifying heating systems and equipment (1b, 2c, 2e);
    c. calculating heat requirements (1b, 2c, 2e);
    d. designing heating systems (1b, 2a, 2c, 2d, 2e);
    e. pricing heating systems (1b, 2a, 2c, 2d, 2e);
    f. explaining energy conservation methods (1b, 2c, 2e).
5. Demonstrate knowledge of greenhouse cooling systems by
    a. identifying cooling systems and equipment (1b, 2c, 2e);
    b. calculating cooling requirements (1b, 2c, 2e);
    c. designing cooling systems (1b, 2a, 2c, 2d, 2e);
    d. pricing cooling systems (1b, 2a, 2c, 2d, 2e);
    e. explaining light modification methods (1b, 2c, 2e).
6. Demonstrate understanding of growth media by
    a. listing media components and their properties (1b, 2c, 2e);
    b. comparing the advantages and disadvantages of media components (1b, 2c, 2e);
    c. comparing growing media preparation methods (1b, 2c, 2e).
7. Describe greenhouse irrigation practices by
    a. comparing water sources (1b, 2c, 2e);
    b. interpreting water quality analysis (1b, 2c, 2e);
    c. comparing irrigation equipment and methods (1b, 2c, 2e).
8. Demonstrate knowledge of plant growth manipulation by
    a. comparing fertilization methods (1b, 2c, 2e);
    b. identifying fertilization equipment (1b, 2c, 2e);
    c. calculating fertilizer formulations and analysis (1b, 2c, 2e);
    d. calculating fertilizer dilution rates (1b, 2c, 2e);
    e. explaining the advantages and disadvantages of carbon dioxide enrichment (1b, 2c, 2e);
    f. explaining methods of carbon dioxide enrichment (1b, 2c, 2e);
    g. explaining plant growth regulator use (1b, 2c, 2e).
9. Demonstrate knowledge of business practices related to greenhouse production by
    a. explaining direct and indirect costs of production (1b, 2c, 2d);
    b. explaining labor costs (1b, 2c, 2d);
    c. explaining profit margins (1b, 2c, 2d);
    d. calculating production costs (1b, 2a, 2c, 2d, 2e);
    e. calculating prices (1b, 2a, 2c, 2d, 2e);
    f. calculating profits (1b, 2a, 2c, 2d, 2e);
    g. producing a crop (1b, 2a, 2c, 2d, 2e).

HALT 2314 - Plant Propagation

General

Course Key
86

Course Rubric
HALT

Course Number
2314

Course Title
Plant Propagation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). A study of the sexual and asexual propagation of plants used in horticulture. Topics include propagation by seeds, cuttings, grafting, budding, layering, division, separation, and tissue culture; and environmental factors of propagation. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate propagation methods; manipulate propagation environments; and explain sexual and asexual reproduction processes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the theories and physiology of plant propagation through sexual methods by
    a. defining sexual plant propagation terminology (1a, 1b);
    b. explaining sexual reproduction processes (1b, 2c);
    c. explaining physical, chemical, environmental, and physiological factors of seed dormancy (1b, 2c);
    d. explaining chemical and physiological processes of germination (1b, 2c);
    e. explaining environmental factors involved in germination (1b, 2c).
2. Apply the methodologies of sexual plant propagation by
    a. explaining seed storage methods (1b, 2a, 2c, 2d);
    b. explaining seed testing processes (1b, 2a, 2c, 2d);
    c. explaining methods of breaking seed dormancies (1b, 2a, 2c, 2d);
    d. applying various seed treatments (1b, 2a, 2b, 2c, 2d, 2e);
    e. propagating plants through sexual methods (1b, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate an understanding of the theories and processes of plant propagation through asexual methods by
    a. defining asexual plant propagation terminology (1a, 1b);
    b. explaining the processes and theories of asexual propagation (1b, 2c);
    c. explaining the physiological, chemical, environmental, and physical factors involved in asexual propagation (1b, 2c).
4. Apply the methodologies of asexual plant propagation by
    a. describing methods of asexual propagation using cuttings, grafting, budding, layering, division, and tissue culture (1b, 2a, 2c, 2d);
    b. calculating dilution rates of various chemicals used in plant propagation (1b, 2c, 2d, 2e);
    c. propagating plants using asexual methods such as cuttings, grafting, budding, division, layering, and tissue culture (1b, 2a, 2b, 2c, 2d, 2e).

HALT 2315 - Landscape Management

General

Course Key
91

Course Rubric
HALT

Course Number
2315

Course Title
Landscape Management

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). A study of the procedures and practices used in the horticulture industry for proper landscape maintenance. Topics include landscape installation, lawn maintenance, shrub and tree care, and management practices. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform techniques used for lawn installations, planting, and construction related to landscape maintenance; demonstrate proper lawn and landscape maintenance practices; and demonstrate proper pruning techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the theories and practices in the utilization of grasses in the landscape by
    a. defining terminology related to turfgrass (1a, 1b);
    b. identifying morphological features of grasses (1a, 1b, 2c, 2d);
    c. utilizing scientific and common names of grasses commonly used in the landscape (1a, 1b, 2c, 2d);
    d. identifying commonly used grass species (1a, 1b, 2c, 2d);
    e. describing the characteristics of commonly used grasses (2c, 2d);
    f. explaining methods used to establish grasses in the landscape (2c, 2d, 2e);
    g. explaining mowing methods (2c, 2d, 2e);
    h. explaining turfgrass renovation methods (2c, 2d, 2e);
    i. describing irrigation techniques (2c, 2d, 2e).
2. Demonstrate an understanding of the theories and practices in the utilization of trees and shrubs in the landscape by
    a. defining terminology related to trees and shrubs (1a, 1b);
    b. explaining planting practices related to trees and shrubs (2c, 2d, 2e);
    c. describing proper pruning methods (2c, 2d, 2e);
    d. identifying tools used in pruning (2c, 2d, 2e);
    e. demonstrating proper pruning methods (2a, 2c, 2d, 2e);
    f. explaining safe pruning procedures (2c, 2d, 2e).
3. Demonstrate knowledge of proper fertilization of plants in the landscape by
    a. explaining methods of fertilizing turfgrass (2c, 2d, 2e);
    b. explaining methods of fertilizing trees and shrubs (2c, 2d, 2e);
    c. calculating fertilization rates (2a, 2c, 2d, 2e);
    d. calibrating fertilizer application equipment (2a, 2c, 2d, 2e).
4. Demonstrate knowledge of irrigation practices in the landscape by
    a. describing proper irrigation methods (2c, 2d, 2e);
    b. identifying irrigation equipment (2c, 2d, 2e);
    c. explaining xeriscape principles and methods (2c, 2d, 2e).

5. Demonstrate knowledge of problems in the landscape by
    a. identifying common weeds (2c, 2d, 2e);
    b. describing common disease problems (2c, 2d, 2e);
    c. describing common pests of plants in the landscape (2c, 2d, 2e);
    d. recommending controls for pests in the landscape (2c, 2d, 2e).

HALT 2318 - Soil Fertility and Fertilizers

General

Course Key
100

Course Rubric
HALT

Course Number
2318

Course Title
Soil Fertility and Fertilizers

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An in-depth study of the chemistry, soil interaction, plant uptake and utilization of essential plant nutrients. Topics include deficiency and toxicity symptoms, and the selection, application, and characteristics of fertilizer materials. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the functions of essential elements in plants; calculate fertilizer requirements; specify fertilizer application rates; and list various fertilizer materials available for use on horticultural plants.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Utilize fertilizer terminology by
    a. defining fertilizer terms (1b, 2c);
    b. explaining fertilizer terms (1b, 2c);
    c. explaining fertilizer chemistry (1b, 2c).
2. Demonstrate an understanding of plant nutrition by
    a. listing the elements essential to plant growth (1b, 2c);
    b. explaining the function of essential nutrients in plant nutrition (1b, 2c);
    c. describing plant nutrient deficiency symptoms (1b, 2c);
    d. describing plant nutrient toxicity symptoms (1b, 2c);
    e. describing factors affecting plant nutrient availability (1b, 2c, 2d).
3. Perform fertilizer calculations by
    a. calculating fertilizer analysis (1b, 2c);
    b. calculating fertilizer costs (1b, 2c);
    c. calculating fertilizer application rates (1b, 2c, 2d).
4. Demonstrate an understanding of fertilizer and plant nutrient applications by
    a. listing organic plant nutrient sources (1b, 2c);
    b. explaining the characteristics of organic plant nutrient sources (1b, 2c);
    c. listing inorganic plant nutrient sources (1b, 2c);
    d. explaining the characteristics of inorganic plant nutrient sources (1b, 2c).

HALT 2320 - Nursery Production and Management

General

Course Key
107

Course Rubric
HALT

Course Number
2320

Course Title
Nursery Production and Management

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). An overview of the procedures for establishing and operating a commercial nursery. Topics include site selection, structures, equipment, stock selection, production practices, harvesting, marketing, and management practices. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain various production practices for nursery crops; apply business and management practices used in commercial nurseries; and perform various calculations associated with the operation and management of a commercial nursery.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the development of the nursery industry by
    a. explaining the history of the nursery industry (1b, 2c, 2d);
    b. outlining important developments in the nursery industry (1b, 2c, 2d);
    c. sequencing nursery industry trends (1b, 2c, 2d).
2. Demonstrate an understanding of the complexities of the nursery industry by
    a. utilizing nursery terminology (1b, 2c, 2d);
    b. categorizing wholesale nursery types (1b, 2c, 2d);
    c. categorizing retail nursery types (1b, 2c, 2d).
3. Demonstrate an understanding of nursery production processes by
    a. analyzing nursery layouts (1b, 2a, 2c, 2d);
    b. explaining bare root production methods (1b, 2c, 2d);
    c. explaining balled and burlap production methods (1b, 2c, 2d).
4. Demonstrate an understanding of the marketing of nursery products by
    a. explaining the wholesale distribution methods (1b, 2c, 2d);
    b. explaining wholesalers (1b, 2c, 2d);
    c. explaining retail operations (1b, 2c, 2d);
    d. explaining methods for improving the sales of nursery products (1b, 2c, 2d);
    e. calculating prices (1a, 1b, 2c, 2d);
    f. explaining price barriers and pricing strategies (2b, 2c, 2d).
5. Demonstrate an understanding of the basics of operating a nursery by
    a. comparing business ownership forms (1b, 2c, 2d);
    b. explaining methods for working with employees (1b, 2b, 2c, 2d);
    c. explaining methods for working with customers (1b, 2b, 2c, 2d).

HALT 2321 - Small Farming

General

Course Key
16475

Course Rubric
HALT

Course Number
2321

Course Title
Small Farming

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Instruction in small farming techniques with emphasis on horticulture science, including comprehensive and profitable guidelines. Topics include herbs, fruit, nut, and vegetable crops.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End of course outcomes: Identify major physical and biological factors that affect crops; utilize innovative production techniques for a small farming operation; demonstrate creative marketing techniques for small farming operations; and design productive and profitable small farming operations.

Upon successful completion of this course, students will:

1. Describe the importance of small farming systems by
   a. explaining the global and regional significance of small farming in society (1a)
   b. distinguishing characteristics of small farms compared to industrialized agriculture (1b)
   c. listing various types of food crops grown in small farming systems (1a)
2. Demonstrate an understanding of crop growth by
   a. listing and describing biological and physical factors that impact crop growth (1a)
   b. listing and describing management techniques that promote healthy crops and farms (1a)
   c. explaining the unique benefits and challenges of small farming systems for crop production (1b)
3. Demonstrate knowledge of innovative production techniques by
   a. listing and describing examples of small-scale farmer innovations (1a).
   b. explaining the significance of crop diversification strategies for small farms (2d)
   c. listing and describing livestock suitable for small farm production (1a).
   d. listing and describing appropriate technologies used in small scale production systems (2e)
4. Demonstrate creative marketing techniques for small scale farms by
   a. listing and describing direct marketing options such as CSA, farmers markets, etc. (1a)
   b. listing and describing farm sales and agritourism related opportunities for income generation (1a)
   c. listing and describing alternative wholesale outlets such as restaurants, cooperatives, and food banks. (1a)
   d. developing a customized marketing approach and pricing structure to achieve profitability for a small farm (2a, 1b)
5. Design a productive and profitable small farming operation by
   a. evaluating the site, soil, and resources sufficient for small farming operations. (2c, 2a)
   b. developing a holistic farm plan considering crop/livestock integration, crop rotations, infrastructure placement, and resource availability. (2a, 2d)
   c. organizing priorities for small farm construction from initial establishment to future completion. (2c, 2d)

HALT 2323 - Horticultural Pest Control

General

Course Key
114

Course Rubric
HALT

Course Number
2323

Course Title
Horticultural Pest Control

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Examination of federal, state, and local laws and regulations governing the control of horticultural pests. Topics include procedures; methods; safety requirements; Integrated Pest Management (IPM); and chemical, natural, and biological controls. Recommended Prerequisite: HALT-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take halt-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HALT 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define pest control terminology; interpret federal, state, local laws, and regulations; and recommend proper pest control methods and procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Utilize pest control terminology by
   a. listing pesticide categories (1a);
   b. listing pesticide formulations (1a);
   c. defining pest control terms (1a);
   d. explaining the importance of pesticides and pest control (1b, 2c);
   e. explaining the risks of pesticides (1b, 2c).
2. Demonstrate an understanding of pesticide labels by
   a. identifying the sections of a pesticide label (1b, 2c);
   b. explaining the information required on a pesticide label (1b, 2c);
   c. interpreting information on a pesticide label (1b, 2c).
3. Demonstrate an understanding of Material Safety Data Sheets (MSDS) by
   a. identifying the sections of MSDS (1b, 2c);
   b. explaining the information on a MSDS (1b, 2c);
   c. interpreting the information contained on a MSDS (1b, 2c).
4. Demonstrate an understanding of federal, state, and local pesticide and pest control regulations by
   a. listing various laws and agencies regulating pesticides and pest control (1b);
   b. explaining the impact of various laws and regulations (1b, 2c);
   c. interpreting laws and regulations affecting pest control (1b, 2c).
5. Apply knowledge of pesticides, IPM, and pest control methods by
   a. listing common names of pest control materials (1b, 2c);
   b. listing trade names of pest control materials (1b, 2c);
   c. recommending pest control measures for various situations (1b, 2c, 2d).
6. Perform basic pesticide calculations by
   a. calculating LD50 values for given materials and body weights (1b, 2c);
   b. calculating dilution rates (1b, 2c);
   c. calculating calibration rates (1b, 2c).

HAMG 1213 - Front Office Management

General

Course Key
12991

Course Rubric
HAMG

Course Number
1213

Course Title
Front Office Management

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Functions of front office operations as they relate to customer service. Includes a study of front office interactions with other departments in the lodging operation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the various service levels and market segments in the lodging industry as they pertain to the front office area of the hospitality operation; and identify front office responsibilities, accounting procedures, revenue management, checkout and settlement procedures, and night audit functions and verification.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comprehend foundational concepts of the lodging industry as they pertain to the Front Office Manager (FOM) by
    a. defining what is the lodging segment (1a, 1b);
    b. defining the common ways to classify hotels (1a, 1b);
    c. listing how hotels are organized (1a, 1b);
    d. identifying the most common structures of hotel affiliation ownership (1a, 1b);
    e. identifying the common challenges confronting the lodging industry (1a, 1b).

2. Demonstrate knowledge of the customer service process by
    a. defining why guest service is so critical to a hotel operation (1a, 1b);
    b. giving examples of quality feedback as it relates to the role of FOM's (1a, 1b);
    c. explaining the importance of the quality components for the FOM (1a, 1b);
    d. identifying the reasons for continuous quality improvement (1a, 1b);
    e. identifying processes that address quality expectations in the hotel (1a, 1b);
    f. explaining a system to design service in a hotel to address customer service (1a, 1b).

3. Provide an overview of the front office department by
    a. explaining the basic function of the front office staff to coordinate guest services (1a, 1b);
    b. comprehending the differences in front office management amongst small, large, and mega hotels (1a, 1b);
    c. defining job tasks that are commonly found in management and non-management positions in the front office of a large hotel (1a, 1b);
    d. identifying basic human resource tactics to recruiting, selecting, training, and staffing for entry level front office employees (1a, 1b).

4. Comprehend the basics of a Property Management System (PMS) by
    a. comprehending how the PMS system provides information for management planning and decision making (1a, 1b, 2d);
    b. identifying the factors that are important when selecting PMS reports for development (1a, 1b);
    c. defining how a PMS system maintains detailed reservation records related to guests and their specific needs (1a, 1b);
    d. identifying how a PMS maintains and reports information about types of rooms sold (1a, 1b);
    e. explaining how the PMS can help the FOM forecast demand (1a, 1b);
    f. explaining how the PMS can price the room inventory (1a, 1b, 2c).

5. Comprehend the basic forecasting considerations for a FOM by
    a. identifying the role of the FOM in the management of rooms forecast data (1a, 1b);
    b. describing how historical, current, and future data help the FOM to estimate room demand (1a, 1b);
    c. explaining how a FOM can utilize PMS data relating to transient and group guests to make room demand forecasts (1a, 1b);
    d. identifying the basic types of reports that FOM's can use to monitor their demand forecast (1a, 1b).

6. Understand the importance of revenue management by
    a. identifying the personnel that are involved in revenue management (1a, 1b);
    b. explaining the concept of establishing room rates by applying information about rate types and rate determination factors (1a, 1b);
    c. explaining the basic information that is used about room types, market codes, and track codes to help maximize RevPar (1a, 1b);

d. comprehending yield management philosophy (1a, 1b);

e. identifying tactics utilized by revenue managers to influence hotel occupancy (1a, 1b, 1c).

7. Understand the different distribution channels by

a. identifying the evolution of distribution channels for hotel reservations (1a, 1b);

b. explaining the different types of distribution channels that are in current use (1a, 1b);

c. explaining how different distribution channels operate (1a, 1b);

d. explaining the challenges to management of different reservation distribution channels (1a, 1b).

8. Understand the importance of reservation reception and room assignment management by

a. explaining the importance of effectively managing processes used for individual and group reservations (1a, 1b);

b. explaining the importance of handling guest reception concerns including those related to arrival lists, upselling, registration, and payment methods (1a, 1b);

c. describing tactics for assigning rooms, issuing keys, walking arriving guests, and recording no-shows (1a, 1b);

d. explaining the use of equipment and procedures that may be integral to the hotel check in process in the future (1a, 1b).

9. Understand the importance of the FOM delivering quality service by

a. explaining the importance of making exemplary first impressions on the guests who are arriving (1a, 1b);

b. explaining the do's and don'ts of dialogue between front desk agents and guests (1a, 1b);

c. describing various opportunities for guest service opportunities for FOM's (1a, 1b);

d. explaining the roles and responsibilities of uniformed service personnel as they assist hotel guests (1a, 1b);

e. explaining the use of processes to manage guest complaints (1a, 1b).

10. Understand the importance of the FOM executing proper guest charges, payment, and check out by

a. describing the basic accounting information necessary to accurately determine guest charges due at check out (1a, 1b);

b. explaining the policies and procedures needed to establish and monitor credit limits (1a, 1b);

c. describing the fundamental requirements to check out and settle accounts of departing guests (1a, 1b);

d. identifying the considerations important when managing late and express check outs and unpaid accounts (1a, 1b);

e. explaining the methods to utilize in managing group allowances (1a, 1b).

11. Understand the importance of the night audit responsibilities by

a. describing the role of the night auditor in accounting for guest and non-guest charges (1a, 1b);

b. explaining the policies and procedures utilized in managing guest and city ledgers (1a, 1b);

c. describing the fundamentals in managing end of day reconciliations (1a, 1b);

d. identifying the purpose of common night audit reports and note sources or report data (1a, 1b);

e. identifying how night audit reports are set to a zero balance (1a, 1b);

f. explaining the basic procedures for archiving appropriate data (1a, 1b, 2c).

12. Understand the role that the FOM plays as the hub of the hotel by

a. describing the executive committee and different agenda items (1a, 1b);

b. giving examples of how information generated by the FOM is used for work assignments by other departments (1a, 1b);

c. explaining how FOM's interact with different departments that have contact with guests (1a, 1b);

d. explaining how FOM's interact with managers and others in building services departments (1a, 1b, 1c).

HAMG 1317 - Recreational Services

General

Course Key
11759

Course Rubric	Course Number	Course Title
HAMG	1317	Recreational Services

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) The study of the recreation and entertainment industry. Emphasizes sporting and entertainment venues, tourism attractions, and other public and private sector special events.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify various segments of the recreation and entertainment industry; and describe management techniques as they pertain to operating recreation and entertainment environments.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Be exposed to the basic characteristics of the hospitality industry by

a. identifying the diverse delivery of services and products in the industry (1a, 1b);

b. comprehending the perishable and nonperishable products of the industry (1a, 1b);

c. identifying the common trends in the hospitality industry (1a, 1b);

d. identifying key elements that impact customer service (1a, 1b).

2. Comprehend the elements of tourism by

a. labeling the key components of tourism (1a, 1b);

b. identifying the benefits of tourism (1a, 1b);

c. recalling the history of tourism (1a, 1b);

d. stating the promoters of tourism (1a, 1b).

3. Recall the different aspects of the hotel business by

a. describing hotel ownership and development (1a, 1b);

b. giving examples of different types of hotels (1a, 1b);

c. recalling the names of prestigious hotels (1a, 1b).

4. Identify the different types of career opportunities in the hospitality industry by

a. recalling the different positions in the hotel business (1a, 1b);

b. recalling the different positions in the restaurant business (1a, 1b);

c. recalling the different positions in managed services (1a, 1b);

d. recalling the different positions in the theme park business (1a, 1b);

e. recalling the different positions in the club business (1a, 1b).

HAMG 1321 - Introduction to Hospitality Industry

General

Course Key
143

Course Rubric
HAMG

Course Number
1321

Course Title
Introduction to the Hospitality Industry

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An exploration of the elements and career opportunities within the multiple segments of the hospitality industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the segments and career opportunities in the hospitality industry; describe the current issues facing the hospitality industry; and explain the impact of the history, growth, and trends in the hospitality industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Be exposed to the basic characteristics of the hospitality industry by
    a. identifying the diverse delivery of services and products in the industry (1a, 1b);
    b. comprehending the perishable and nonperishable products of the industry (1a, 1b);
    c. identifying the common trends in the hospitality industry (1a, 1b);
    d. identifying key elements that impact customer service (1a, 1b).
2. Comprehend the elements of tourism by
    a. labeling the key components of tourism (1a, 1b);
    b. identifying the benefits of tourism (1a, 1b);
    c. recalling the history of tourism (1a, 1b);
    d. stating the promoters of tourism (1a, 1b).
3. Recall the different aspects of the hotel business by
    a. describing hotel ownership and development (1a, 1b);
    b. giving examples of different types of hotels (1a, 1b);
    c. recalling the names of prestigious hotels (1a, 1b).
4. Identify the different types of career opportunities in the hospitality industry by
    a. recalling the different positions in the hotel business (1a, 1b);
    b. recalling the different positions in the restaurant business (1a, 1b);
    c. recalling the different positions in managed services (1a, 1b);
    d. recalling the different positions in the theme park business (1a, 1b);
    e. recalling the different positions in the club business (1a, 1b).

HAMG 1324 - Hospitality Human Resources Management

General

Course Key
152

Course Rubric
HAMG

Course Number
1324

Course Title
Hospitality Human Resources Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Principles and procedures of human resource management in the hospitality industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the procedures involved in recruiting, interviewing, selecting, hiring, training, developing, and terminating employees; and describe federal and state laws and regulations relating to human resources management. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the importance of human resources in the hospitality business by
    a. explaining the contribution of the human resource department to the organization (1a, 1b);
    b. identifying the different roles in the human resource department (1a, 1b);
    c. identifying human resource terminology (1a, 1b).
2. Demonstrate an understanding of the role of human resources in building a diverse work environment by
    a. identifying characteristics of a diverse work environment (1a, 1b);
    b. giving examples of the benefits of a diverse work environment (1a, 1b);
    c. explaining the procedures to avoid illegal discrimination (1a, 1b);
    d. explaining how prejudices and stereotypes affect the work environment (1a, 1b);
    e. giving examples of methods to promote diversity (1a, 1b).
3. Demonstrate an understanding of the important elements of job descriptions by
    a. defining a job description (1a, 1b);
    b. explaining the related documents to the job description (1a, 1b);
    c. explaining the methods for analyzing a job (1a, 1b);
    d. explaining the difference between exempt and nonexempt positions (1a, 1b);
    e. explaining the importance of maintaining job descriptions (1a, 1b).
4. Demonstrate an understanding of the recruiting process by
    a. explaining the steps in the recruiting process (1a, 1b);
    b. explaining the importance of forecasting staffing needs (1a, 1b);
    c. defining the factors that encompass a proper forecast (1a, 1b);
    d. identifying the benefits of different types of forecast related to recruiting (1a, 1b);
    e. identifying the sources of potential employees (1a, 1b);
    f. explaining the benefits of recruiting from internal sources (1a, 1b);
    g. explaining the benefits of recruiting from external sources (1a, 1b);
    h. defining the methods to communicate a job opening (1a, 1b);
    i. defining the steps in a make or buy analysis (1a, 1b);
    j. explaining the methods for evaluating a recruiting method (1a, 1b).
5. Demonstrate an understanding of the basics of screening and interviewing potential employees by
    a. describing the screening process (1a, 1b);
    b. describing screening tools and techniques (1a, 1b);
    c. explaining procedures for avoiding illegal discrimination in screening (1a, 1b);
    d. describing how to conduct screening interviews (1a, 1b);
    e. describing the methods for testing work skills (1a, 1b);
    f. describing the use of personality tests (1a, 1b);
    g. identifying the steps of the job interview (1a, 1b);
    h. explaining the steps to plan for the job interview (1a, 1b);
    i. describing how to conduct a job interview (1a, 1b);
    j. explaining the importance of reference checks (1a, 1b);
    k. giving examples of methods for conducting reference checks (1a, 1b).

6. Demonstrate an understanding of making a job offer by
    a. explaining the necessary elements to choose the best candidate (1a, 1b);
    b. describing the different elements of a job offer (1a, 1b);
    c. explaining the methods for making a job offer (1a, 1b);
    d. explaining the methods of negotiating a job offer (1a, 1b);
    e. describing a successful job acceptance (1a, 1b);
    f. explaining the methods for notifying the unsuccessful candidates (1a, 1b);
    g. describing the importance of conducting final background checks (1a, 1b);
    h. giving examples of various types of final background checks (1a, 1b).

7. Demonstrate an understanding of hiring and orienting new employees by
    a. explaining the importance of orientation (1a, 1b);
    b. describing the hiring and orientation activities (1a, 1b);
    c. identifying the steps in planning an orientation (1a, 1b);
    d. describing the processing of hiring related documents (1a, 1b);
    e. explaining the methods of evaluating an orientation (1a, 1b).

8. Demonstrate an understanding of the transition to supervising and motivating employees by
    a. explaining the difference between supervising and being an employee (1a, 1b);
    b. describing the various methods and theories that motivate an employee (1a, 1b);
    c. describing methods of planning for success (1a, 1b);
    d. identifying different methods of communication (1a, 1b);
    e. identifying methods of monitoring employees (1a, 1b);
    f. explaining steps to ensure standards are upheld by employees (1a, 1b);
    g. identifying the steps in the disciplinary process (1a, 1b);
    h. giving examples of recognition and incentive programs (1a, 1b).

9. Demonstrate an understanding of developing employees by
    a. explaining the importance of the function of employee development (1a, 1b);
    b. explaining the employee development process (1a, 1b);
    c. giving examples of methods of employee development (1a, 1b);
    d. describing the difference between a supervisor and a coach (1a, 1b);
    e. explaining the benefits of coaching (1a, 1b).

10. Demonstrate an understanding of training employees by
    a. describing the benefits of training (1a, 1b);
    b. giving examples of different forms of training (1a, 1b);
    c. explaining the elements of effective training (1a, 1b);
    d. identifying the steps in the five step training development model (ADDIE) (1a, 1b);
    e. identifying recognized hospitality industry training (1a, 1b).

11. Demonstrate an understanding of the proper methods for managing shifts by
    a. describing the importance of setting standards (1a, 1b);
    b. giving examples of standards in different hospitality organizations (1a, 1b);
    c. describing the process of setting shift goals (1a, 1b);
    d. explaining the shift planning process (1a, 1b);
    e. explaining the process for scheduling staff (1a, 1b);
    f. explaining the importance of pre-shift, mid-shift, and shift end meetings (1a, 1b);
    g. describing the importance of utilizing checklists (1a, 1b);
    h. describing the different methods of evaluating shift performance (1a, 1b, 2c).

12. Demonstrate an understanding of how to properly terminate employees by
    a. describing the difference between voluntary and involuntary terminations (1a, 1b);
    b. explaining the importance of utilizing termination checklists (1a, 1b);
    c. explaining the purpose of exit interviews (1a, 1b);
    d. identifying the exit interview methods and formats (1a, 1b);
    e. identifying the proper methodology of using exit interview information (1a, 1b).

13. Demonstrate an understanding of the importance of ensuring a lawful workplace by
    a. explaining the impact of laws on the hospitality business (1a, 1b);
    b. explaining the methods for providing safe food (1a, 1b);
    c. describing the process of serving alcohol responsibly (1a, 1b);
    d. explaining the importance of ensuring a fair workplace (1a, 1b);
    e. describing the methods of communicating workplace hazards to employees (1a, 1b);
    f. explaining the importance of laws to protect younger workers (1a, 1b);
    g. defining a union (1a, 1b);
    h. describing the general guidelines for complying with laws (1a, 1b).

14. Demonstrate an understanding of employee benefits, compensation, and how it impacts labor costs by
    a. explaining the basic employee benefits plans (1a, 1b);
    b. describing the types of employee benefits (1a, 1b);
    c. describing common voluntary benefits (1a, 1b);
    d. describing the methods for complying with retirement and health benefit laws (1a, 1b);
    e. explaining the importance of ensuring accurate compensation (1a, 1b);
    f. explaining the relationship of benefits and compensation to labor costs (1a, 1b);
    g. explaining different methods of controlling labor costs (1a, 1b).

HAMG 1340 - Hospitality Legal Issues

General

Course Key
160

Course Rubric
HAMG

Course Number
1340

Course Title
Hospitality Legal Issues

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the basic legal principles governing the hospitality industry as they relate to guests, employees, vendors, and contractors; articulate the legal environment in which the hospitality industry must exist; and analyze the impact of laws and regulations on the industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the legal prevention philosophy in the hospitality industry by
    a. identifying the advantages of preventing rather than managing a legal difficulty (1a, 1b);
    b. explaining the decisions that they will make as managers and the legal implications for each of the decisions (1a, 1b, 2a, 2c);
    c. identifying the significant federal and state governmental administrative agencies that interact with the hospitality industry (1a, 1b, 2a, 2c);
    d. identifying the steps in responding to an inquiry and/or complaint (1a, 1b).
2. Demonstrate an understanding of hospitality business structures by
    a. identifying common organizational structures (1a, 1b);
    b. identifying common operational structures (1a, 1b);
    c. inferring the differences between real and personal property (1a, 1b, 2a, 2c).
3. Demonstrate an understanding of contract basics by
    a. explaining the essential components of an enforceable contract (1a, 1b, 2c);
    b. identifying key elements of a franchise contract (1a, 1b);
    c. explaining the advantages and disadvantages of operating as a franchise (1a, 1b).
4. Demonstrate an understanding of how to legally select employees by
    a. defining employment at will (1a, 1b);
    b. demonstrating understanding of employee selection techniques (1a, 1b, 2c);
    c. explaining the laws related to hiring (1a, 1b, 1c).
5. Demonstrate an understanding of his/her responsibilities to guests by
    a. explaining when to admit and to refuse accommodation to guests (1a, 1b, 2c);
    b. explaining the issues of premises liability and obligations regarding total guest safety (1a, 1b, 2c, 2d);
    c. explaining the duties to guests of guests (1a, 1b, 1c);
    d. explaining the appropriate considerations for eviction, lockout, and expulsion procedures (1a, 1b, 2c, 2d).
6. Demonstrate an understanding of his/her responsibilities regarding the service of food and beverages by
    a. explaining the potential liability for serving alcohol (1a, 1b, 2c);
    b. summarizing the Uniform Commercial Code's warranty for serving food (1a, 1b, 2c, 2d);
    c. explaining the necessity of accurately describing services and ingredients to comply with the various truth in menu laws (1a, 1b, 1c).

HAMG 2267 - Practicum-Hospitality Admin/Management

General

Course Key
12721

Course Rubric
HAMG

Course Number
2267

Course Title
Practicum-Hospitality Administration and Management

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Complete paperwork for employment by
    a. completing a job application (1a);
    b. organizing a resume (1a);
    c. composing a two-week resignation letter (if necessary) (1a).
2. Become employed in the hospitality industry at an approved site by
    a. completing an interview with the hiring company (1c);
    b. becoming hired as an employee in a hospitality organization (1b);
    c. completing 224 hours of work in 16 week semester (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Illustrate work experience in a written format by
    a. summarizing weekly experience on weekly timesheets (1a, 1b);
    b. sketching work station (1a, 1b);
    c. preparing reproduction or organization chart of front of house and back of house (1a, 1b, 2c, 2d).
4. Evaluate experience by
    a. preparing self-evaluation (1a, 1b);
    b. preparing worksite evaluation (1a, 1b, 2d);
    c. preparing practicum experience evaluation (1a, 1b).

HAMG 2301 - Principles of Food & Beverage Operations

General

Course Key
190

Course Rubric
HAMG

Course Number
2301

Course Title
Principles of Food and Beverage Operations

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An overview of food and beverage management in various hospitality environments. Emphasizes cost controls from procurement to marketing and sales. Examines forecasting, menu planning and pricing, logistical support, production, purchasing, and quality assurance.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify food and beverage operations in various hospitality settings. Describe the methods for incorporating cost control techniques and identify areas of excessive cost and waste; compare a forecasted budget to an actual budget; and identify techniques that impact sales. Create and analyze a menu plan and pricing strategies, production, purchasing, and quality assurance.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of foundational concepts related to cost and sales by
    a. defining the terms sales and costs (1a, 1b);
    b. defining fixed, directly variable, semi-variable, controllable, noncontrollable, unit, total, prime, historical, and planned costs (1a, 1b);
    c. providing examples of fixed, directly variable, semi-variable, controllable, non-controllable, unit, total, prime, historical, and planned costs (1a, 1b);
    d. giving examples illustrating monetary and nonmonetary sales concepts (1a, 1b);
    e. describing the significance of cost to sales relationships (1a, 1b);
    f. identifying several cost to sales ratios important in food and beverage management (1a, 1b);
    g. explaining the value of comparing current cost to sales ratios with those for previous periods (1a, 1b);
    h. describing factors that cause industry wide variations in cost percentages (1a, 1b).
2. Demonstrate an understanding of the control process in a food and beverage establishment by
    a. defining control in food and beverage management (1a, 1b);
    b. providing examples of the significance of control in food and beverage management (1a, 1b);
    c. describing control techniques used in food and beverage operations (1a, 1b);
    d. listing the steps in the control process (1a, 1b);
    e. explaining why the cost benefit ratio is significant when making control decisions (1a, 1b).
3. Demonstrate an understanding of cost/volume/profit analysis by
    a. explaining the relationships that exist among cost/volume/profits (1a, 1b);
    b. applying the cost/volume/profit equation (1a, 1b);
    c. defining the terms variable rate and contribution rate (1a, 1b);
    d. applying the formulas used to determine a forecast for sales in dollars and sales in units (1a, 1b, 2c);
    e. applying the formulas used to determine a forecast for variable and fixed costs (1a, 1b, 2a, 2c, 2d);
    f. applying the formulas used to determine profit, contribution rate, and contribution margin (1a, 1b, 2c);
    g. applying the formulas to determine variable rate and breakeven point (1a, 1b, 2d).
4. Demonstrate an understanding of food purchasing and quality assurance as it relates to cost control by
    a. outlining the purchasing process in the operations of foodservice establishments (1a, 1b);
    b. explaining how quality standards for food purchases are established (1a, 1b);
    c. describing the forecasting process to determine the quantity of perishable food purchased (1a, 1b);
    d. determining order quantities using periodic and perpetual order methods (1a, 1b, 2c);
    e. explaining the advantages and disadvantages of centralized purchasing and standardized purchases (1a, 1b).
5. Demonstrate an understanding of the importance of proper food storing and issuing as it relates to cost control and quality assurance by
    a. listing causes of unplanned costs that can develop while food is in storage (1a, 1b);
    b. explaining the principle of stock rotation as applied to foodservice (1a, 1b);
    c. describing the process utilized to price and extend a food requisition (1a, 1b);
    d. explaining the difference between inter-unit and intra-unit transfers (1a, 1b);
    e. explaining the significance of transfers in determining accurate food costs (1a, 1b).
6. Demonstrate an understanding of the importance of monitoring foodservice operations by
    a. explaining the importance of monitoring a foodservice operation to assess monthly performance (1a, 1b);
    b. describing the procedure for taking physical inventory at the end of the month (1a, 1b);
    c. explaining methods to assign unit costs to a food inventory (1a, 1b);
    d. calculating the cost of food consumed, cost of food sold, and food cost percentage (1a, 1b, 2c);
    e. distinguishing between opening inventory and closing inventory (1a, 1b);
    f. explaining the relationship between the monthly calculation of cost of food sold and the monthly income statement (1a, 1b);
    g. preparing a monthly food cost report (1a, 1b, 2c).
7. Demonstrate an understanding of how menu planning and pricing impacts sales, costs, and profits by
    a. explaining how menu prices impact sales, costs, and profits (1a, 1b);
    b. explaining the concept of menu engineering (1a, 1b);
    c. completing a menu engineering worksheet (1a, 1b, 2c);
    d. analyzing the resulting information from a menu engineering worksheet (1a, 1b, 2c);
    e. describing appropriate action to take based on results of menu engineering worksheet (1a, 1b, 2c).
8. Demonstrate an understanding of the importance of controlling food and beverage sales by
    a. explaining the goals of sales control (1a, 1b);
    b. describing the determinants of customer restaurant selection (1a, 1b);
    c. describing standard procedures for controlling revenue (1a, 1b).
9. Demonstrate an understanding of the basics of forecasting in a food and beverage environment by
    a. explaining the impact of forecasting as it relates to menu pricing, marketing, production, and purchasing (1a, 1b, 2d);
    b. identifying the key elements to be utilized in a forecast (1a, 1b, 2c, 2d);
    c. producing forecasts for a food and beverage establishment (1a, 1b, 2c, 2d);
    d. identifying the common anomalies in business that can produce significant errors in forecasting (1a, 1b, 1c, 2c, 2d).
10. Demonstrate an understanding of the basics of controlling labor cost in a food and beverage environment by
    a. defining the basic elements that make up labor cost (1a, 1b, 2d);
    b. identifying the determinates that impact labor costs (1a, 1b);
    c. computing basic labor cost formulas (1a, 1b, 2c, 2d).

HAMG 2305 - Hospitality Management and Leadership

General

Course Key
201

Course Rubric
HAMG

Course Number
2305

Course Title
Hospitality Management and Leadership

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formulation, communications, motivation, and team building.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Compare and contrast the various styles of leadership and management; develop mission statements supported by goals and objectives; identify motivation and team building practices as they relate to the hospitality industry; and evaluate the communication styles of leaders and managers.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Be exposed to the basic leadership philosophies of the hospitality industry by
    a. comprehending the definition of management (1a, 1b);
    b. identifying what is involved in strategic management in the hospitality business (1a, 1b);
    c. comprehending the difference between traditional style and contemporary style of management (1a, 1b);
    d. comprehending a philosophical overview of management and leadership (1a, 1b);
    e. giving examples of different types of operational management structures in the hospitality business (1a, 1b).
2. Identify the key stakeholders that are part of management decisions by
    a. labeling the key stakeholders in hospitality decision making (1a, 1b);
    b. identifying the roles of stakeholders in management decisions (1a, 1b);
    c. comprehending the major cultural issues affecting the hospitality industry (1a, 1b);
    d. stating the main governmental agencies that influence hospitality decision making (1a, 1b);
    e. giving examples of how stakeholders and governmental agencies impact a hospitality organization's mission statements and goals (1a, 1b).
3. Recall the different methods of motivation and team building by
    a. describing how individuals at different levels in the hospitality business are motivated (1a, 1b);
    b. giving examples of foundational motivational theories (1a, 1b);
    c. recalling different methods of communication (1a, 1b);
    d. comprehending how communication style influences policy formulation (1a, 1b);
    e. giving examples of common hospitality policies utilized in the hospitality business (1a, 1b).
4. Define the purpose of a mission statement by
    a. recalling the definition of a mission statement (1a, 1b);
    b. giving examples of mission statements utilized by hospitality organizations (1a, 1b);
    c. defining a goal (1a, 1b);
    d. defining an objective (1a, 1b);
    e. comprehending how a mission statement is supported by goals and objectives (1a, 1b);
    f. giving examples of mission statements that are utilized in the hospitality industry (1a, 1b).
5. Comprehend the major strategic hospitality management trends and how they relate to leadership decision making by
    a. identifying U.S. trends that are impacting hospitality decision making (1a, 1b, 2a);
    b. identifying global trends that are impacting hospitality decision making (1a, 1b);
    c. comprehending the leadership competencies required to successfully leverage hospitality trends into an organization (1a, 1b);
    d. composing a mission statement, goals, and objectives for a hospitality organization (1a, 1b, 2a, 2c).

HAMG 2307 - Hospitality Marketing and Sales

General

Course Key
210

Course Rubric
HAMG

Course Number
2307

Course Title
Hospitality Marketing and Sales

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Identification of the core principles of marketing and sales and their impact on the hospitality industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the components of the marketing mix; develop or critique a marketing plan as it relates to an organizational mission statement and strategic plan; and differentiate between various marketing and sales techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comprehend the core principles of marketing and sales by
    a. defining the role of hospitality and tourism marketing (1a, 1b);
    b. identifying core marketing concepts (1a, 1b);
    c. identifying the key components of the marketing mix (1a, 1b);
    d. identifying the key marketing terminology (1a, 1b);
    e. identifying hospitality companies that embrace the marketing/customer satisfaction model (1a, 1b);
    f. distinguishing differences amongst needs, wants, and demands; values, satisfaction, and quality (1a, 1b).
2. Comprehend an understanding of market segmentation, target marketing, and positioning by
    a. defining market segmentation, target marketing, and positioning (1a, 1b);
    b. listing the steps in segmentation, targeting marketing, and positioning (1a, 1b);
    c. illustrating with examples the concept of positioning for competitive advantage (1a, 1b, 2a, 2b, 2c, 2d).
3. Identify aspects of identification, differentiation, analysis of production, pricing considerations, approaches, and strategies by
    a. identifying external and internal factors affecting pricing and pricing decisions (1a, 1b);
    b. distinguishing amongst various pricing approaches (1a, 1b);
    c. explaining short term and long term effects of inappropriate pricing strategies (1a, 1b, 2a, 2b, 2c);
    d. selecting appropriate pricing approach for selected product (1a, 1b, 2a, 2c).
4. Develop a hospitality marketing plan as it relates to an organizational mission statement and strategy plan by
    a. identifying a hospitality product as subject of a marketing plan (1a, 1b, 2a, 2c);
    b. selecting components of a marketing plan (1a, 1b, 2a);
    c. evaluating components of a marketing plan (1a, 1b);
    d. composing a hospitality marketing plan (1a, 1b, 2a, 2c);
    e. discussing marketing plan with peer group that includes successful technique to sales (1a, 1b, 2a, 2b, 2c, 2d).

HAMG 2330 - Convention & Group Management & Services

General

Course Key
219

Course Rubric
HAMG

Course Number
2330

Course Title
Convention and Group Management and Services

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An application of the essential components of successful convention and meeting planning.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the economic impact of the conventions industry; describe and compare the various types of conventions, exhibitions, conferences, and the marketing tools used for pre-planning strategies; and assess requirements for food and beverage service, meeting room setups, and post meeting evaluations. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of foundational concepts of conventions and group management services by
    a. explaining the different types of conventions and meetings (1a, 1b);
    b. describing some events from the past that were meetings (1a, 1b);
    c. identifying who attends meetings (1a, 1b);
    d. identifying what is accomplished at a convention (1a, 1b);
    e. identifying the key jobs in a facility (e.g. hotel, resort, etc.) that contribute to a successful convention (1a, 1b);
    f. giving examples of industry organizations that represent the convention and group management industry (1a, 1b);
    g. defining APEX (1a, 1b);
    h. explaining what APEX is intended to accomplish (1a, 1b);
    i. explaining the future of electronic meetings (1a, 1b);
    j. distinguishing between a trade show and an exposition (1a, 1b).

2. Demonstrate an understanding of the organizations that sponsor conventions by
    a. identifying the types of sponsoring organizations that hold the greatest number of gatherings (1a, 1b);
    b. identifying the types of sponsoring organizations that have the greatest economic benefit (1a, 1b);
    c. identifying which types of sponsoring organizations have the greatest marketing challenges (1a, 1b);
    d. identifying the changes that are taking place with incentive trips (1a, 1b);
    e. explaining how not for profit organizations differ from for profit organizations (1a, 1b);
    f. explaining what types of organizations make up associations known as SMERFS (1a, 1b).

3. Demonstrate an understanding of destination marketing organizations (DMO's) in relation to the convention business by
    a. defining a DMO (1a, 1b);
    b. giving examples of DMO services (1a, 1b);
    c. identifying the different methods by which DMO's can be funded (1a, 1b);
    d. explaining the contributions that a DMO provides for meeting professionals (1a, 1b);
    e. explaining the contributions that the DMAI provides for meeting professionals (1a, 1b).

4. Demonstrate an understanding of the basics of special event management by
    a. defining the characteristics of a special event (1a, 1b);
    b. identifying the planning tools for a special event (1a, 1b);
    c. defining the target market for a special event (1a, 1b);
    d. giving examples of stakeholders that plan for a special event (1a, 1b);
    e. defining profitable opportunities for a special event (1a, 1b).

5. Demonstrate an understanding of the basics of banquet and catered events by
    a. defining a banquet (1a, 1b);
    b. explaining the purpose of a banquet (1a, 1b);
    c. describing the different types of catering operations (1a, 1b);
    d. explaining the relationship between a catering department and other hotel departments (1a, 1b);
    e. explaining the purpose of the meal function at a banquet (1a, 1b);
    f. distinguishing the types of meal functions (1a, 1b);
    g. explaining how effective menu planning is related to service (1a, 1b);
    h. describing different types of menu design (1a, 1b);
    i. identifying steps to pricing a banquet event for profit (1a, 1b);
    j. explaining the different types of room setups for effective customer service (1a, 1b).

6. Demonstrate an understanding of the basics of creating and executing a legal contract by
    a. explaining the importance of utilizing a contract (1a, 1b);
    b. identifying the important elements of a contract (1a, 1b);
    c. identifying the basic risks at a convention (1a, 1b);
    d. explaining methods to reduce the risks at conventions (1a, 1b);
    e. explaining the basics of negotiating a contract (1a, 1b);
    f. explaining the legal aspects of recording or videotaping entertainers (1a, 1b).

7. Demonstrate an understanding of the management of a meeting, exposition, event and convention (MEEC) by
    a. identifying the method to create a statement of objectives for a MEEC (1a, 1b);
    b. identifying the different expenses associated with a MEEC (1a, 1b);
    c. explaining the different revenue sources with a MEEC (1a, 1b);
    d. explaining the importance of a timetable for a MEEC (1a, 1b);
    e. describing the elements that are part of a timetable for a MEEC (1a, 1b, 2c);
    f. identifying the elements that are part of a site inspection (1a, 1b);
    g. describing the process of conducting a site inspection (1a, 1b, 2c);
    h. defining a request for proposal (RFP) (1a, 1b);
    i. describing the different elements of a RFP (1a, 1b);
    j. explaining the methodology for measuring the success of a MEEC (1a, 1b).

HART 1401 - Basic Electricity for HVAC

General

Course Key
12201

Course Rubric	Course Number	Course Title
HART	1401	Basic Electricity for Heating, Ventilation and Air Conditioning (HVAC)

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate knowledge of basic principles of electricity, electrical current, circuitry, and air conditioning devices; apply Ohm's law to electrical calculations; perform electrical continuity, voltage, and current tests with appropriate meters; and demonstrate electrical safety. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the current theory of electron flow by
    a. describing atomic structure (1a, 1b);
    b. defining electrical charge (1a, 1b);
    c. differentiating between conventional and electron current flow (1a, 1b).
2. Define electrical terms by
    a. defining voltage (1a, 2c);
    b. defining current (1a, 2c);
    c. defining amperage (1a, 2c).
3. Demonstrate an understanding of DC circuits by
    a. using Ohm's law to determine resistance, amperage, and voltage values (1a, 1b, 2c);
    b. using Kirchoff's current law to determine node currents (1a, 1b, 2c);
    c. using the power formula to calculate circuit wattages (1a, 1b, 2c).
4. Connect DC circuits by
    a. connecting series circuits (1a, 1b, 2c);
    b. connecting parallel circuits (1a, 1b, 2c);
    c. connecting combination circuits (1a, 1b, 2c).
5. Demonstrate the proper use of a multimeter by
    a. connecting the meter to measure amperage in a series and parallel circuit (1a, 1b, 2c, 2e);
    b. connecting the meter to measure voltage (1a, 1b, 2c, 2e);
    c. connecting the meter to measure resistance (1a, 1b, 2c, 2e).
6. Demonstrate an understanding of the generation of AC electricity by
    a. explaining the current theory of magnetism (1a, 1b, 2c);
    b. identifying sine wave properties (1a, 1b, 2c).
7. Demonstrate an understanding of the effect of inductance in an AC circuit by
    a. defining inductance (1a, 1b, 2c);
    b. defining inductive reactance (1a, 1b, 2c).
8. Analyze inductive circuits by
    a. calculating inductive reactance (1a, 1b, 2c);
    b. calculating inductive power (1a, 1b, 2c);
    c. drawing voltage and current wave forms for a purely inductive circuit (1a, 1b, 2c).
9. Explain the principle of operation of a power transformer by
    a. defining mutual inductance (1a, 1b, 2c);
    b. determining transformer ratios (1a, 1b, 2c);
    c. identifying transformer windings (1a, 1b, 2c).
10. Demonstrate an understanding of the effect of capacitance in an AC circuit by
    a. defining capacitance (1a, 1b, 2c);
    b. defining capacitive reactance (1a, 1b, 2c);
    c. drawing voltage and current wave forms for a purely inductive circuit (1a, 1b, 2c).
11. Connect AC circuits by
    a. connecting series circuits (1a, 1b);
    b. connecting parallel circuits (1a, 1b);
    c. connecting transformer circuits (1a, 1b).
12. Demonstrate an understanding of AC circuits by
    a. using Ohm's law to determine resistance, amperage, and voltage values (1a, 1b, 2c);
    b. using Kirchoff's current law to determine node currents (1a, 1b, 2c);
    c. using the power formula to calculate circuit wattages (1a, 1b, 2c);
    d. calculating apparent and true power (1a, 1b, 2c);
    e. calculating the power factor of an AC reactive circuit (1a, 1b, 2c).

HART 1403 - Air Conditioning Control Principles

General

Course Key
225

Course Rubric
HART

Course Number
1403

Course Title
Air Conditioning Control Principles

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits. Required Prerequisite: HART-1401 & HART-2431

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

TAKE HART-1401, HART-2431;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): HART 1401 & HART 2431

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Test, repair, and/or replace HVAC-related electrical and control components, wiring and equipment; read, draw, and interpret high and low voltage control circuits. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the purpose of a wiring diagram by
    a. listing the types of wiring diagrams (1a, 1b, 2c, 2d);
    b. describing the advantages and disadvantages of the types of wiring diagrams (1a, 1b, 2c, 2d);
    c. identifying the parts of a wiring diagram (1a, 1b, 2c, 2d);
    d. creating a practical wiring circuit using a wiring diagram (1a, 1b, 1c, 2a, 2c, 2d, 2e).

2. Demonstrate an understanding of the purpose of electrical meters by
    a. identifying a voltmeter, ammeter, and ohmmeter (1a, 1b, 2c, 2d);
    b. determining which meter is best for a particular application or situation (1a, 1b, 2c, 2d);
    c. describing how to physically connect the meter to a circuit for measurement (1a, 1b, 2c, 2d);
    d. measuring voltage, current, and resistance with the proper electric meter (1a, 1b, 1c, 2c, 2d, 2e);
    e. listing the safety precautions when using electric meters (1a, 1b, 2c, 2d);
    f. interpreting meter readings (1a, 1b, 2c, 2d).

3. Demonstrate an understanding of low voltage control circuits by
    a. listing the modes of operation of a typical forced air conditioning and heating system (1a, 1b, 2c, 2d);
    b. explaining why 24 volts AC is used (1a, 1b, 2c, 2d);
    c. creating a low voltage control wiring circuit (1a, 1b, 1c, 2c, 2d, 2e);
    d. describing the color coding of control wiring (1a, 1b, 2c, 2d).

4. Demonstrate an understanding of the function of a thermostat by
    a. identifying the types of thermostats (1a, 1b, 2c, 2d);
    b. describing the advantages and disadvantages of the different types of thermostats (1a, 1b, 2c, 2d);
    c. explaining the operation of auto changeover and multistage thermostats (1a, 1b, 2c, 2d).

5. Demonstrate an understanding of the function of an indoor blower in HVAC equipment by
    a. listing the types of blower motors found in residential and light commercial HVAC (1a, 1b, 2c, 2d);
    b. identifying the type of motor from its electrical wiring connections (1a, 1b, 2c, 2d);
    c. explaining the operation of different types of blower motors (1a, 1b, 2c, 2d);
    d. explaining how to test and adjust an ECM motor (1a, 1b, 2c, 2d);
    e. listing the types of indoor blower relays (1a, 1b, 2c, 2d);
    f. identifying the types of blower motors (1a, 1b, 2c, 2d);
    g. creating a practical working multi speed electrical circuit using a PSC motor (1a, 1b, 1c, 2c, 2d, 2e).

6. Demonstrate an understanding of the components in a gas furnace by
    a. listing the gas furnace efficiency levels (1a, 1b, 2c, 2d);
    b. identifying the components found in a gas furnace (1a, 1b, 2c, 2d);
    c. explaining the function of the components found in gas furnaces (1a, 1b, 2c, 2d);
    d. creating an electrical connection diagram of a gas furnace (1a, 1b, 1c, 2c, 2d, 2e).

7. Demonstrate an understanding of the components in an electric air handler by
    a. identifying the components found in an electric air handler (1a, 1b, 2c, 2d);
    b. explaining the function of the components in an electric air handler (1a, 1b, 2c, 2d);
    c. creating an electrical connection diagram of an electric air handler (1a, 1b, 1c, 2c, 2d, 2e).

8. Demonstrate an understanding of the low voltage components found in a central air conditioning condensing unit by
    a. identifying the low voltage components found in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
    b. explaining the function of the low voltage components in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
    c. listing the types of low voltage switches and relays found in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
    d. describing the operation of pressure switches (1a, 1b, 2c, 2d);
    e. describing the operation of time delay relays (1a, 1b, 2c, 2d);
    f. describing the operation of condensate overflow safety devices (1a, 1b, 2c, 2d).

9. Demonstrate an understanding of the line voltage components found in a central air conditioning condensing unit by
    a. identifying the line components found in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
    b. explaining the function of the line voltage components in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
    c. creating an electrical connection diagram of a central air conditioning condensing unit (1a, 1b, 1c, 2c, 2d, 2e).

10. Demonstrate an understanding of troubleshooting procedures by
    a. analyzing a system to determine its problem (1a, 1b, 1c, 2c, 2d, 2e);
    b. breaking down areas of a system to focus in on the problem (1a, 1b, 1c, 2c, 2d, 2e);
    c. developing a process of elimination to determine the problem with a system (1a, 1b, 1c, 2c, 2d, 2e);
    d. evaluating the findings of an improperly operating system to that of a properly working system (1a, 1b, 1c, 2c, 2d, 2e);
    e. locating the source of the problem using test equipment (1a, 1b, 1c, 2c, 2d, 2e).

HART 1407 - Refrigeration Principles

General

Course Key
12202

Course Rubric	Course Number	Course Title
HART	1407	Refrigeration Principles

Semester Credit Hours	Lecture Hours	Lab Hours
4	2	7

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-7). An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components, and safety.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify refrigeration components; explain operation of the basic refrigeration cycle and heat transfer; demonstrate proper application and/or use of tools, test equipment, and safety procedures. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Evaluate basic lab and workplace safety procedures and protocols by
    a. describing safety as it pertains to tools, chemicals, clothing, and fire (1a, 1b, 2c);
    b. listing the components of the fire triangle (1a, 1b, 2c);
    c. demonstrating safety in the lab environment (1a, 1b, 2c).
2. Evaluate the physical laws as they apply to the refrigeration cycle by
    a. discussing the gas laws, absolute pressure, absolute temperature, atmospheric pressure, and enthalpy (1a, 1b, 2c);
    b. listing the four temperature scales (1a, 1b, 2c, 2d);
    c. distinguishing sensible heat from latent heat (1a, 1b, 2c, 2d);
    d. calculating enthalpy change both sensible and latent (1a, 1b, 2c, 2d).
3. Evaluate brazing and soldering procedures by
    a. describing the operation of an oxygen/acetylene torch and an air/acetylene torch (1a, 1b, 2c, 2d);
    b. demonstrating safety using both torches (1a, 1b, 2c, 2d);
    c. demonstrating brazing and soft soldering skills (1a, 1b, 2c, 2d).
4. Demonstrate understanding of the refrigeration cycle by
    a. describing the sequence of operation of the refrigeration cycle (1a, 1b, 2a, 2d);
    b. sketching the refrigeration cycle (1a, 1b, 2a, 2d);
    c. listing the four major components of the refrigeration cycle (1a, 1b, 2a, 2d).
5. Demonstrate understanding of refrigerants and oils by
    a. describing the purpose of refrigerants and oils (1a, 1b, 2a, 2d);
    b. listing the classifications of refrigerants (1a, 1b, 2a, 2d);
    c. discussing safety procedures during refrigerant handling (1a, 1b, 2a, 2d).
6. Demonstrate understanding of refrigeration compressors by
    a. discussing the operation of compressors within the refrigeration cycle (1a, 1b, 2a, 2d);
    b. listing the three compressor configurations (1a, 1b, 2a, 2d);
    c. listing the five compression types (1a, 1b, 2a, 2d);
    d. identifying compressors (1a, 1b, 2a, 2d).
7. Demonstrate understanding of metering devices by
    a. discussing the operation of the metering device within the refrigeration cycle (1a, 1b, 2a, 2d);
    b. listing the six types of metering devices (1a, 1b, 2a, 2d);
    c. identifying metering devices within the refrigeration system (1a, 1b, 2a, 2d).
8. Demonstrate understanding of piping practices by
    a. discussing piping of the refrigeration lines (1a, 1b, 2a, 2d);
    b. determining proper techniques to overcome special challenges within the three refrigerant lines (1a, 1b, 2a, 2d);
    c. sketching the refrigeration circuit (1a, 1b, 2a, 2d).
9. Demonstrate an understanding of system evacuation by
    a. discussing the purpose and procedures of system evacuation (1a, 1b, 2a, 2d);
    b. listing the components of system evacuation (1a, 1b, 2a, 2d);
    c. demonstrating proper technique and safety during system evacuation (1a, 1b, 2a, 2d).
10. Demonstrate understanding of refrigerant recovery by
    a. discussing the purpose and procedures of system recovery (1a, 1b, 2a, 2d, 2e);
    b. demonstrating troubleshooting techniques on computer simulation (1a, 1b, 2a, 2e);
    c. demonstrating proper technique and safety during system recovery (1a, 1b, 2a, 2e);
    d. demonstrating the knowledge necessary to become EPA certified (1a, 1b, 2a, 2e).

HART 1441 - Residential Air Conditioning

General

Course Key
9945

Course Rubric
HART

Course Number
1441

Course Title
Residential Air Conditioning

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems. Required Prerequisites: HART-1401 and HART-1407

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take HART-1401 HART-1407;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): HART 1401 and HART 1407

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify various types of system applications; perform charging, recovery, and evacuation procedures of an installed system; perform component and part diagnostics and replacement; and perform system maintenance. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply the principles and theory of refrigeration by
    a. defining refrigeration terms (1a, 1b);
    b. defining temperature ranges (1a, 1b);
    c. defining refrigeration process (1a, 1b);
    d. analyzing refrigerator components (1a, 1b).
2. Demonstrate an understanding of the current EPA regulations by
    a. defining ozone (1a, 1b);
    b. defining ozone depletion (1a, 1b);
    c. defining appliance types (1a, 1b);
    d. explaining permitted releases (1a, 1b);
    e. defining recovery (1a, 1b);
    f. defining recycle (1a, 1b);
    g. defining reclaim (1a, 1b);
    h. analyzing the rules and regulations as they apply to small appliances (1a, 1b).
3. Define electrical terms by
    a. defining voltage (1a, 2c);
    b. defining current (1a, 2c);
    c. defining amperage (1a, 2c);
    d. analyzing compressor windings (1a, 1b).
4. Explain the principle of operation single phase motors by
    a. defining resistive start induction run (1a, 1b, 2c);
    b. defining PSC (1a, 1b, 2c);
    c. discussing start devices (1a, 1b, 2c).
5. Connect and troubleshoot electrical circuits and controls by
    a. explaining different methods of defrost (1a, 1b, 2c);
    b. analyzing termination thermostat (1a, 1b, 2c);
    c. analyzing sweat prevention heaters (1a, 1b, 2c);
    d. explaining devices that respond to thermal change (1a, 1b, 2c).
6. Demonstrate the proper use of a wiring diagram by
    a. explaining the difference between a ladder and a pictorial (1a, 1b, 2c);
    b. identifying all components (1a, 1b, 2c);
    c. analyzing the proper sequence of operation (1a, 1b, 2c).
7. Demonstrate an understanding of system evacuation by
    a. explaining evacuation (1a, 1b, 2c);
    b. defining vapor charging (1a, 1b);
    c. defining critical charge (1a, 1b).
8. Explain the principle of operation of a cooling and dehumidifying system by
    a. defining room air conditioning (1a, 1b, 2c);
    b. defining package unit (1a, 1b, 2c);
    c. explaining capacity (1a, 1b, 2c);
    d. analyzing manufacturer design (1a, 1b, 2c);
    e. defining sealed system (1a, 1b, 2c);
    f. analyzing unit construction (1a, 1b, 2c).
9. Explain the principle of operation of a heat pump system by
    a. defining reverse cycle refrigeration (1a, 1b, 2c);
    b. explaining the 4 way valve (1a, 1b, 2c);
    c. explaining supplemental heat (1a, 1b, 2c);
    d. analyzing sticking reversing valve (1a, 1b, 2c).
10. Explain the principles of installing and servicing small hermetic systems by
    a. explaining sizing of ACR copper (1a, 1b, 2c);
    b. analyzing tubing type (1a, 1b, 2c);
    c. analyzing brazing types (1a, 1b, 2c);
    d. analyzing methods for repair (1a, 1b, 2c).
11. Explain the principle of proper troubleshooting of residential air conditioning systems by
    a. determining the difference between mechanical and electrical problems (1a, 1b, 2c);
    b. understanding what the unit should be doing (1a, 1b, 2c);
    c. repairing the unit (1a, 1b, 2c);
    d. analyzing a wiring diagram (1a, 1b, 2c).

HART 1445 - Gas and Electric Heating

General

Course Key
4540

Course Rubric
HART

Course Number
1445

Course Title
Gas and Electric Heating

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
7

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-7). Study of the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems. Required Prerequisite: HART-1401 Required Corequisite: HART-2431

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

TAKE HART-1401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Required Prerequisite Or Corequisite

10
A Requirement block where all subrequirements are required

Take HART-2431
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): HART 1401
Required Corequisite(s): HART 2431

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify different types of gas furnaces; identify and describe component operation of gas furnaces; service and troubleshoot gas furnaces; perform safety inspections on gas and electric heating systems; identify unsafe operation of gas furnaces; identify and discuss component operation of electric heating systems; and service and troubleshoot electric heating systems. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the fuel gases used in residential heating by
    a. describing BTU content (1a, 1b, 2c);
    b. defining specific gravity (1a, 1b);
    c. determining fuel usage volumes (1a, 1b).
2. Demonstrate an understanding of fuel gas ignition by
    a. identifying perfect flame (1b, 2c, 2d, 2e);
    b. identifying typical flame (1b, 2c, 2d, 2e);
    c. identifying lifting flame (1b, 2c, 2d, 2e);
    d. identifying incomplete combustion in a flame (1b, 2c, 2d, 2e);
    e. identifying flame rollout (1b, 2c, 2d, 2e);
    f. determining complete combustion (1b, 2c, 2d, 2e).
3. Define electrical terms by
    a. defining voltage (1a, 2c);
    b. defining current (1a, 2c);
    c. defining amperage (1a, 2c);
    d. defining wattage (1a, 2c).
4. Demonstrate the ability to identify heat exchanger types by
    a. describing a tubular heat exchanger (1b, 2c, 2d);
    b. describing a sectional heat exchanger (1b, 2c, 2d);
    c. describing a barrel heat exchanger (1b, 2c, 2d);
    d. differentiating heat exchanger efficiency (1a, 1b, 2c, 2d).
5. Demonstrate the proper use of a multimeter by
    a. connecting the meter to measure amperage in a series and parallel circuit (1a, 1b, 2c, 2e);
    b. connecting the meter to measure voltage (1a, 1b, 2c, 2e);
    c. connecting the meter to measure resistance (1a, 1b, 2c, 2e).
6. Demonstrate the ability to identify and troubleshoot gas furnace control system components by
    a. identifying controls (1a, 1b, 2c, 2d);
    b. explaining control usage (1a, 1b, 2c, 2d);
    c. modifying control settings (1b, 2a, 2d, 2e);
    d. distinguishing control failure (1b, 1c, 2c, 2d, 2e).
7. Demonstrate the ability to identify and operate electronic fuel gas ignition systems by
    a. differentiating available ignition systems (1a, 1b, 2c, 2d);
    b. explaining operation of ignition systems (1a, 1b, 2c, 2d);
    c. analyzing ignition system failures (1a, 1b, 2c, 2e);
    d. isolating ignition system failure causes (1a, 1b, 2c, 2d, 2e).
8. Display sound industry based work habits in the laboratory by
    a. employing safe work practices (1a, 1c, 2a);
    b. capitalizing on assigned laboratory activities (1a, 1c, 2a, 2b, 2c);
    c. performing group activities (1a, 1c, 2a, 2b);
    d. calculating service invoice pricing (1a, 2a, 2b, 2e).
9. Operate computerized simulation software by
    a. operating a personal computer system (1b, 2a, 2c, 2e);
    b. reacting to simulated heating system failures (1b, 2a, 2c, 2e);
    c. responding to failures with corrective actions (1b, 2a, 2c, 2d, 2e).
10. Construct operational wiring circuits on training devices by
    a. illustrating operational gas heating ladder diagram (1a, 1b, 2c, 2d, 2e);
    b. creating an operating gas heating electrical circuit (1a, 1b, 2c, 2d, 2e);
    c. illustrating operational electric heating ladder diagrams (1a, 1b, 2c, 2d, 2e);
    d. creating an operating electric heating ladder diagram (1a, 1b, 2c, 2d, 2e).
11. Calculate combustion air volumes by
    a. calculating volumes based on code requirements (1a, 1b, 2c, 2d);
    b. calculating vent system volumes based on system consumption (1a, 1b, 2c, 2d);
    c. calculating vent system size (1a, 1b, 2c, 2d);
    d. calculating combustion sizing (1a, 1b, 2c, 2d).

HART 2402 - Commercial Air Conditioning System Dsgn

General

Course Key
10539

Course Rubric
HART

Course Number
2402

Course Title
Commercial Air-Conditioning System Design

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Advanced study in essential elements of commercial air conditioning contracting including duct systems design; equipment selection using manufacturers' data; and preparation of shop drawings and submittals. Recommended Prerequisite: HART-2445

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take hart-2445;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HART 2445

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculate heat loss and heat gain; read and interpret detailed HVAC design specifications and plans; design a complete air distribution system; size heating and cooling equipment to the structure; and perform a load calculation using industry standards. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Evaluate environmental air conditions using psychometric standards by
    a. locating the various indices on a psychometric chart (1a, 1b, 2c);
    b. determining air conditions on a psychometric chart (1a, 1b, 2c);
    c. predicting supply air conditions on a psychometric chart (1a, 1b, 2c);
    d. calculating the required BTU's required for the specific temperature change (1a, 1b, 2c, 2d).
2. Formulate HVAC system size for a residential structure by
    a. evaluating building materials (1a, 1b, 2c, 2d);
    b. evaluating thermal resistance (1a, 1b, 2c, 2d);
    c. identifying the various heat load considerations located in a commercial structure (1a, 1b, 2c, 2d);
    d. locating the appropriate table values in the Manual N (1a, 1b, 2c, 2d);
    e. determining the correct construction numbers for building materials (1a, 1b, 2c, 2d);
    f. calculating structure loss and gains (1a, 1b, 2c, 2d);
    g. completing the Manual N form (1a, 1b, 2c, 2d, 2e);
    h. determining correct grill type and size (1a, 1b, 2c, 2d, 2e).
3. Design a commercial HVAC duct system by
    a. selecting appropriate materials (1a, 1b, 2c, 2d);
    b. calculating duct static losses (1a, 1b, 2c, 2d, 2e);
    c. estimating duct sizes (1a, 1b, 2c, 2d, 2e);
    d. estimating duct sizing using a ductulator (1a, 1b, 2c, 2d, 2e);
    e. determining correct grill type and size (1a, 1b, 2c, 2d, 2e).
4. Calculate a price quote for a commercial HVAC system by
    a. listing required installation materials (1a, 1b, 2a, 2d);
    b. evaluating material cost and markup (1a, 1b, 2a, 2e);
    c. determining expected labor costs (1a, 1b, 2a, 2d, 2e);
    d. summarizing information into a job price quote (1a, 1b, 2a, 2e).

HART 2431 - Advanced Electricity for HVAC

General

Course Key
276

Course Rubric
HART

Course Number
2431

Course Title
Advanced Electricity for Heating, Ventilation and Air Conditioning (HVAC)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment including detailed instruction in motors and power distribution motors, motor controls, and application of solid state devices. Required Prerequisite: HART-1401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

TAKE HART-1401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): HART 1401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply the principles and theory of power distribution; describe the theory, operation, and protection of electric motors; identify the application of solid state devices; troubleshoot electric motors and controls. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the principles and theory of power distribution by
    a. defining control transformer terms (1a, 1b);
    b. connecting control transformers (1a, 1b, 2c);
    c. explaining 3 phase power generation (1a, 1b, 2c).
2. Define electrical terms by
    a. defining inductance (1a, 2c);
    b. defining impedance (1a, 2c);
    c. defining capacitance (1a, 2c).
3. Demonstrate an understanding of AC circuits by
    a. using Ohm's law to determine resistance, amperage, and voltage values (1a, 1b, 2c);
    b. using Z formulas to determine total impedance (1a, 1b, 2c);
    c. using the power formula to calculate circuit wattages (1a, 1b, 2c).
4. Connect 3 phase circuits by
    a. connecting delta circuits (1a, 1b, 2c);
    b. connecting open delta circuits (1a, 1b, 2c);
    c. connecting wye circuits (1a, 1b, 2c).
5. Demonstrate the proper use of a multimeter by
    a. connecting the meter to measure amperage in a series and parallel circuit (1a, 1b, 2c, 2e);
    b. connecting the meter to measure voltage (1a, 1b, 2c, 2e);
    c. connecting the meter to measure resistance (1a, 1b, 2c, 2e).
6. Demonstrate an understanding of the generation of AC electricity in a delta transformer configuration by
    a. listing 3 wire delta voltages (1a, 1b, 2c);
    b. listing 4 wire delta voltages (1a, 1b, 2c);
    c. listing open delta voltages (1a, 1b, 2c).
7. Demonstrate an understanding of the generation of AC electricity in a wye transformer configuration by
    a. listing low wye voltages (1a, 1b, 2c);

b. listing high wye voltages (1a, 1b, 2c).

8. Use National Electrical Code charts by
   a. determining ampacity (1a, 1b, 2c);
   b. determining disconnect size (1a, 1b, 2c);
   c. computing inductor resistance (1a, 1b, 2c).

9. Explain the principle of operation single phase motors by
   a. defining motor slip (1a, 1b, 2c);
   b. determining starting torque (1a, 1b, 2c);
   c. discussing start winding removal devices (1a, 1b, 2c).

10. Demonstrate an understanding of the effect of capacitance in a single phase motor circuit by
    a. defining start capacitor (1a, 1b, 2c);
    b. defining run capacitor (1a, 1b, 2c);
    c. connecting capacitor motor circuits (1a, 1b, 2c).

11. Connect 3 phase motor circuits by
    a. connecting delta motor circuits (1a, 1b);
    b. connecting wye motor circuits (1a, 1b);
    c. connecting dual voltage motor circuits (1a, 1b).

12. Demonstrate an understanding of solid state circuits by
    a. defining semiconductors (1a, 1b, 2c);
    b. discussing semiconductor theory (1a, 1b, 2c);
    c. listing advantages of semiconductors (1a, 1b, 2c).

HART 2434 - Advanced Air Conditioning Controls

General

Course Key
10540

Course Rubric
HART

Course Number
2434

Course Title
Advanced Air Conditioning Controls

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Recommended Prerequisite: HART-1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take hart-1403;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HART 1403

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Install and troubleshoot complex electrical control devices; control circuits; apply A/C control concepts; and analyze the effects of smart energy networks and how they interface with HVAC control systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the purpose of a wiring diagram by
   a. listing the types of wiring diagrams (1a, 1b, 2c, 2d);
   b. describing the advantages and disadvantages of the types of wiring diagrams (1a, 1b, 2c, 2d);
   c. identifying the parts of a wiring diagram (1a, 1b, 2c, 2d);
   d. creating a practical wiring circuit using a wiring diagram (1a, 1b, 1c, 2a, 2c, 2d, 2e).

2. Demonstrate an understanding of the purpose of electrical meters by
   a. identifying a voltmeter, ammeter, and ohmmeter (1a, 1b, 2c, 2d);
   b. determining which meter is best for a particular application or situation (1a, 1b, 2c, 2d);
   c. describing how to physically connect the meter to a circuit for measurement (1a, 1b, 2c, 2d);
   d. measuring voltage, current, and resistance with the proper electric meter (1a, 1b, 1c, 2c, 2d, 2e);
   e. listing the safety precautions when using electric meters (1a, 1b, 2c, 2d);
   f. interpreting meter readings (1a, 1b, 2c, 2d).

3. Demonstrate an understanding of low voltage control circuits by
   a. listing the modes of operation of a typical forced air conditioning and heating system (1a, 1b, 2c, 2d);
   b. explaining why 24 volts AC is used (1a, 1b, 2c, 2d);
   c. creating a low voltage control wiring circuit (1a, 1b, 1c, 2c, 2d, 2e);
   d. describing the color coding of control wiring (1a, 1b, 2c, 2d).

4. Demonstrate an understanding of the function of a thermostat by
   a. identifying the types of thermostats (1a, 1b, 2c, 2d);
   b. describing the advantages and disadvantages of the different types of thermostats (1a, 1b, 2c, 2d);
   c. explaining the operation of auto changeover and multistage thermostats (1a, 1b, 2c, 2d).

5. Demonstrate an understanding of the function of an indoor blower in HVAC equipment by
   a. listing the types of blower motors found in residential and light commercial HVAC (1a, 1b, 2c, 2d);
   b. identifying the type of motor from its electrical wiring connections (1a, 1b, 2c, 2d);
   c. explaining the operation of different types of blower motors (1a, 1b, 2c, 2d);
   d. explaining how to test and adjust an ECM motor (1a, 1b, 2c, 2d);
   e. listing the types of indoor blower relays (1a, 1b, 2c, 2d);
   f. identifying the types of blower motors (1a, 1b, 2c, 2d);

g. creating a practical working multispeed electrical circuit using a PSC motor (1a, 1b, 2c, 2d, 2e).

6. Demonstrate an understanding of the components in a gas furnace by
   a. listing the gas furnace efficiency levels (1a, 1b, 2c, 2d);
   b. identifying the components found in a gas furnace (1a, 1b, 2c, 2d);
   c. explaining the function of the components found in gas furnaces (1a, 1b, 2c, 2d);
   d. creating an electrical connection diagram of a gas furnace (1a, 1b, 1c, 2c, 2d, 2e).
7. Demonstrate an understanding of the components in an electric air handler by
   a. identifying the components found in an electric air handler (1a, 1b, 2c, 2d);
   b. explaining the function of the components in an electric air handler (1a, 1b, 2c, 2d);
   c. creating an electrical connection diagram of an electric air handler (1a, 1b, 1c, 2c, 2d, 2e).
8. Demonstrate an understanding of the low voltage components found in a central air conditioning condensing unit by
   a. identifying the low voltage components in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
   b. explaining the function of the low voltage components in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
   c. listing the types of low voltage switches and relays found in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
   d. describing the operation of pressure switches (1a, 1b, 2c, 2d);
   e. describing the operation of time delay relays (1a, 1b, 2c, 2d);
   f. describing the operation of condensate overflow safety devices (1a, 1b, 2c, 2d).
9. Demonstrate an understanding of the voltage components found in a central air conditioning condensing unit by
   a. identifying the line components found in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
   b. explaining the function of the line voltage components in a central air conditioning condensing unit (1a, 1b, 2c, 2d);
   c. creating an electrical connection diagram of a central air conditioning condensing unit (1a, 1b, 2c, 2d, 2e).
10. Demonstrate an understanding of troubleshooting procedures by
    a. analyzing a system to determine its problem (1a, 1b, 1c, 2c, 2d, 2e);
    b. breaking down areas of a system to focus in on the problem (1a, 1b, 1c, 2c, 2d, 2e);
    c. developing a process of elimination to determine the problem with a system (1a, 1b, 1c, 2c, 2d, 2e);
    d. evaluating the findings of an improperly operating system to that of a properly working system (1a, 1b, 1c, 2c, 2d, 2e);
    e. locating the source of the problem using test equipment (1a, 1b, 1c, 2c, 2d, 2e).

HART 2436 - Air Conditioning Troubleshooting

General

Course Key
283

Course Rubric
HART

Course Number
2436

Course Title
Air Conditioning Troubleshooting

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Required Prerequisites: HART-1403 HART-1441 HART-1445 and HART-2445

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take HART-1403 HART-1441 HART-1445 HART-2445;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): HART 1403 HART 1441 HART 1445 and HART 2445

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Test and diagnose components, systems, and accessories; complete applicable documentation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the refrigeration cycle by
   a. defining saturated refrigerant, superheat, and sub-cooling (1a, 1b, 2c, 2d);
   b. labeling components in the refrigeration cycle (1a, 1b, 2c, 2d);
   c. describing the function of each refrigeration system component (1a, 1b, 2c, 2d);
   d. showing refrigerant conditions in the refrigeration system (1a, 1b, 2b, 2c, 2d).
2. Demonstrate an understanding of refrigerant charge conditions by
   a. identifying the symptoms of a properly charged system (1a, 1b, 2c, 2d, 2e);
   b. identifying the symptoms of an undercharged system (1a, 1b, 2c, 2d, 2e);
   c. identifying the symptoms of an overcharged system (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of proper airflow in an HVAC system by
   a. explaining proper airflow volume and velocity (1a, 1b, 2c, 2d);
   b. adjusting airflow on a lab system and record readings (1a, 1b, 2c, 2d, 2e);
   c. evaluating a system with variable airflow (1a, 1b, 2c, 2d).
4. Demonstrate the ability to properly dismantle lab equipment by
   a. practicing the replacement of common components in HVAC systems (1a, 1b, 2c, 2d, 2e);
   b. differentiating components of the same type, but different brand or configuration (1a, 1b, 2c, 2d);
   c. identifying defective components through visual and audible analysis (1a, 1b, 2c, 2d, 2e).
5. Demonstrate the ability to diagnose HVAC related problems through computer simulation software by
   a. duplicating conditions that would be found in a malfunctioning system (1a, 1b, 2c, 2d);
   b. analyzing conditions to determine the fault (1a, 1b, 2c, 2d);
   c. performing troubleshooting procedures using test equipment (1a, 1b, 2c, 2d, 2e).
6. Demonstrate the ability to analyze wiring diagrams by
   a. identifying components on a wiring diagram (1a, 1b, 2c, 2d);
   b. describing the operation of a system based on its wiring diagram (1a, 1b, 2c, 2d);
   c. explaining the troubleshooting procedure from the electrical side of the system (1a, 1b, 2c, 2d).

7. Demonstrate an understanding of troubleshooting procedures by
    a. analyzing a system to determine its problem (1a, 1b, 2c, 2d, 2e);
    b. breaking down areas of a system to focus on the problem (1a, 1b, 2c, 2d, 2e);
    c. developing a process of elimination to determine the problem with a system (1a, 1b, 2c, 2d);
    d. evaluating the findings of an improperly operating system to that a of properly working system (1a, 1b, 1c, 2c, 2d, 2e);
    e. locating the source of the problem using test equipment (1a, 1b, 2c, 2d, 2e).

8. Display sound industry based work habits in the laboratory by
    a. employing safe work practices (1a, 1c, 2a);
    b. capitalizing on assigned laboratory activities (1a, 1c, 2a, 2b, 2c);
    c. performing group activities successfully (1a, 1c, 2a, 2b);
    d. calculating service invoice pricing (1a, 2a, 2b, 2e).

9. Demonstrate an understanding of workplace ethics related to HVAC by
    a. reporting troubleshooting findings to the end user (1a, 1b, 1c, 2b, 2c, 2d);
    b. differentiating between ethical and unethical practices (1a, 1b, 1c, 2b, 2c, 2d);
    c. helping end users make educated decisions regarding their HVAC system (1a, 1b, 1c, 2b, 2c, 2d).

HART 2438 - Air Conditioning Installation/Startup

General

Course Key
290

Course Rubric	Course Number	Course Title
HART	2438	Air Conditioning Installation and Startup

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Install air conditioning equipment and evaluate system performance; demonstrate disposal and recycling of materials, including refrigerants and mercury; demonstrate bending and cutting technique for system piping; and install equipment and ductwork according to industry standards to maximize efficiency.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Display good industry based work habits in the laboratory by
    a. employing safe work practices (1a, 1c, 2a);
    b. capitalizing on assigned laboratory activities (1a, 1c, 2a, 2b, 2c);
    c. performing group activities (1a, 1c, 2a, 2b);
    d. calculating job pricing (1a, 2a, 2b, 2e).

2. Design a condensate removal system by
    a. formulating condensate removal pipe size (1b, 2b, 2c, 2d);
    b. constructing condensate removal piping system (1b, 2d, 2e);
    c. evaluating HVAC system type required (1b, 2a, 2e).

3. Install a functional supply air duct system by
    a. choosing correct materials for specific applications (1a, 1b, 2b, 2d);
    b. fastening system components together (1a, 1b, 2a, 2d);
    c. evaluating system for air tightness (1b, 2d);
    d. determining if system meets state and local code requirements (1a, 1b, 2b).

4. Construct sheet metal duct fitting(s) in the laboratory by
    a. following instructions from a layout (1a, 1b, 2a);
    b. measuring stock for correct size (1b, 2c);
    c. using hand and shop tools (1b, 2c, 2e);
    d. constructing a duct fitting (1b, 2b, 2c, 2e).

5. Demonstrate an understanding of building code references by
    a. relating learned skills to code requirements (1a, 1b, 2c);
    b. deducing which reference to use for specific applications (1a, 1b, 2c);
    c. reading a mechanical code reference book (1a, 1b, 2c);
    d. reading an energy conservation code reference book (1a, 1b, 2c);
    e. reading a fuel gas code reference book (1a, 1b, 2c).

6. Demonstrate the ability to design and construct an HVAC refrigerant piping system by
    a. choosing correct size materials for specific applications (1a, 1b, 2b, 2d);
    b. fastening system components together (1a, 1b, 2a, 2d);
    c. evaluating system for tightness (1b, 2d);
    d. determining if system meets state and local code requirements (1a, 1b, 2b).

7. Design a functioning electric supply circuit by
    a. selecting appropriately sized wiring (1a, 1b, 2b, 2d);
    b. fastening wire in an appropriate manner (1a, 1b, 2a, 2d);
    c. evaluating system for operation (1b, 2d);
    d. determining if system meets state and local code requirements (1a, 1b, 2b).

8. Become NAIMA certified for modular duct board construction by
    a. evaluating duct board materials (1a, 1b, 2b, 2d);
    b. selecting appropriate materials (1a, 1b, 2b, 2d);
    c. building duct modules by hand fabrication (1a, 1b, 2a, 2d);
    d. building duct modules by machine fabrication (1a, 1b, 2a, 2d);
    e. altering duct modules to construct fittings (1a, 1b, 2d);
    f. evaluating fittings for functionality (1b, 2d);
    g. determining if system meets state and local code requirements (1a, 1b, 2b);
    h. completing NAIMA certification successfully (1a, 1b, 2b).

9. Construct an operational HVAC system by
    a. assembling HVAC equipment (1a, 1b, 2b, 2e);
    b. constructing a duct system (1a, 1b, 2b, 2e);
    c. constructing a drainage system (1a, 1b, 2b, 2e);
    d. constructing a refrigerant piping system (1a, 1b, 2b, 2e);
    e. connecting line and low voltage wiring (1a, 1b, 2b, 2e);
    f. evaluating system operation (1a, 1b, 2c, 2d, 2e).

HART 2441 - Commercial Air Conditioning

General

Course Key
10541

Course Rubric	Course Number	Course Title
HART	2441	Commercial Air Conditioning
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	2	7

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-7) A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less. Recommended Prerequisite: HART-1441

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take hart-1441;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HART 1441

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply and describe the sequence of operation for commercial air conditioning systems and their accessories; identify components relative to commercial air conditioning; and explain energy efficient and renewable energy technologies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the refrigeration cycle by
    a. defining saturated refrigerant, superheat, and sub-cooling (1a, 1b, 2c, 2d);
    b. labeling components in the refrigeration cycle (1a, 1b, 2c, 2d);
    c. describing the function of each refrigeration system component (1a, 1b, 2c, 2d);
    d. showing refrigerant conditions in the refrigeration system (1a, 1b, 2b, 2c, 2d).

2. Describe applications of commercial air conditioning by
    a. identifying where commercial applications are found (1a, 1b, 2c, 2d);
    b. giving examples of facilities requiring air conditioning (1a, 1b).

3. Identify various commercial air conditioning systems by
    a. identifying a split system and a self-contained system (1a, 1b, 2c, 2d);
    b. differentiating between a split system and a self-contained system (1a, 1b, 2c, 2d, 2e);
    c. locating various fixtures in the lab area (1a, 1b, 2c, 2d, 2e).

4. Demonstrate an understanding of various compressor types and designs by
    a. identifying a reciprocating, scroll, rotary, and screw compressor (1a, 1b, 2c, 2d);
    b. describing the operation of a reciprocating, scroll, rotary, and screw compressor (1a, 1b, 2c, 2d);
    c. identifying an open drive, semi hermetic, and hermetic compressor (1a, 1b, 2c, 2d);
    d. locating various compressor types in the lab area (1a, 1b, 2c, 2d).

5. Perform service procedures on a working air conditioning system by
    a. explaining proper charging procedures (1a, 1b, 1c, 2c, 2d);
    b. adjusting the refrigerant and oil charge in an air conditioning system (1a, 1b, 1c, 2b, 2c, 2d);
    c. describing the effects of an undercharged and overcharged air conditioning system (1a, 1b, 2c, 2d);
    d. altering the refrigerant charge to create a change in system performance (1a, 1b, 1c, 2b, 2c, 2d).

6. Demonstrate an understanding of a pump down cycle by
    a. stating the purpose of the pump down cycle (1a, 1b);
    b. identifying the components that make up a pump down cycle (1a, 1b, 2c, 2d);
    c. determining the cut in, cut out, and differential settings on a low pressure switch (1a, 1b, 2c, 2d);
    d. adjusting a low pressure switch for proper operation (1a, 1b, 2b, 2c, 2d).

7. Demonstrate an understanding of air conditioning accessories in an air conditioning system by
    a. identifying types of accessories (1a, 1b, 2c, 2d);
    b. explaining the purpose of various accessories (1a, 1b, 2c, 2d);
    c. locating various accessories in an air conditioning system (1a, 1b, 2c, 2d).

8. Demonstrate an understanding of refrigerant recovery, recycling, and reclamation by
    a. describing the application of refrigerant recovery, recycling, and reclamation (1a, 1b, 2c, 2d);
    b. differentiating recovery processes (1a, 1b, 2c, 2d);
    c. classifying required evacuation levels on different sizes of equipment (1a, 1b, 2c, 2d);
    d. performing a refrigerant recovery procedure in the lab area (1a, 1b, 1c, 2b, 2c, 2d, 2e).

9. Demonstrate an understanding of types of refrigerants by
    a. ranking refrigerants as to their harmfulness to the environment (1a, 1b, 2c, 2d);
    b. grouping refrigerants based on their temperature application (1a, 1b, 2c, 2d);
    c. defining temperature glide, including its effects (1a, 1b, 2c, 2d).

10. Demonstrate an understanding of condensers by
    a. describing various condenser types (1a, 1b, 2c, 2d);
    b. identifying air cooled, water cooled, and evaporative condensers (1a, 1b, 2c, 2d);
    c. explaining proper cleaning and maintenance procedures for condensers (1a, 1b, 2c, 2d);
    d. evaluating condenser performance on a working system (1a, 1b, 2c, 2d).

11. Demonstrate an understanding of condenser head pressure control by
    a. listing the methods of head pressure control (1a, 1b, 2c, 2d);
    b. identifying the components for various types of head pressure control (1a, 1b, 2c, 2d);
    c. adjusting head pressure controls (1a, 1b, 1c, 2c, 2d, 2e).

12. Demonstrate an understanding of evaporators by
    a. identifying different evaporator designs and types (1a, 1b, 2c, 2d);
    b. describing various evaporator types (1a, 1b, 2c, 2d);
    c. explaining the proper selection procedure of an evaporator (1a, 1b, 2c, 2d).

13. Demonstrate an understanding of an evaporator pressure regulating (EPR) valve by
    a. describing the application of an EPR valve (1a, 1b, 2c, 2d);
    b. identifying an EPR valve (1a, 1b, 2c, 2d);
    c. adjusting an EPR valve (1a, 1b, 2c, 2d, 2e).

14. Demonstrate an understanding of the operation of a thermostatic expansion valve (TXV) by
    a. identifying a TXV (1a, 1b, 2c, 2d);
    b. defining internal and external equalization as it relates to TXVs (1a, 1b, 2c, 2d);
    c. explaining proper adjustment procedure for a TXV (1a, 1b, 2c, 2d);
    d. adjusting a TXV (1a, 1b, 2c, 2d, 2e);
    e. selecting a TXV (1a, 1b, 2c, 2d, 2e).

15. Demonstrate an understanding of capacity control by
    a. explaining five methods of capacity control (1a, 1b, 2c, 2d);
    b. defining compressor/evaporator balance (1a, 1b, 2c, 2d);
    c. describing operation of the different types of capacity control (1a, 1b, 2c, 2d);
    d. identifying types of capacity control devices (1a, 1b, 2c, 2d);
    e. adjusting capacity control devices (1a, 1b, 2c, 2d, 2e).

16. Demonstrate an understanding of an oil separator by
    a. listing the types of oil separators (1a, 1b, 2c, 2d);
    b. explaining the operation of an oil separator (1a, 1b, 2c, 2d);
    c. locating an oil separator in an air conditioning system (1a, 1b, 2c, 2d);
    d. describing other accessories that may be found being used with an oil separator (1a, 1b, 2c, 2d).

17. Demonstrate an understanding of an oil pressure failure safety switch by
    a. explaining how to connect an oil pressure failure safety switch (1a, 1b, 2c, 2d);
    b. identifying an oil pressure failure safety switch (1a, 1b, 2c, 2d);
    c. measuring effective oil pressure (1a, 1b, 2c, 2d, 2e);
    d. constructing an electrical circuit using an oil pressure failure safety switch (1a, 1b, 2c, 2d).

18. Demonstrate an understanding of proper piping design and installation by
    a. describing the types of fittings and piping used in air conditioning refrigerant piping (1a, 1b, 2c, 2d);
    b. evaluating a piping system (1a, 1b, 2c, 2d);
    c. listing the minimum and maximum refrigerant flow velocities (1a, 1b, 2c, 2d);
    d. describing the problems associated with poor piping practices (1a, 1b, 2c, 2d).

19. Demonstrate an understanding of troubleshooting procedures by
    a. analyzing a system to determine its problem (1a, 1b, 2c, 2d, 2e);
    b. breaking down areas of a system to focus on the problem (1a, 1b, 2c, 2d, 2e);
    c. developing a process of elimination to determine the problem with a system (1a, 1b, 2c, 2d);
    d. evaluating the findings of an improperly operating system to that of a properly working system (1a, 1b, 1c, 2c, 2d, 2e);
    e. locating the source of the problem using test equipment (1a, 1b, 2c, 2d, 2e).

HART 2442 - Commercial Refrigeration

General

Course Key
12203

Course Rubric
HART

Course Number
2442

Course Title
Commercial Refrigeration

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
7

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-7). Theory and practical application in the maintenance of commercial refrigeration; medium, and low temperature applications and ice machines. Required Prerequisites: HART-1441 and HART-2431

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take HART-1441 HART-2431;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): HART 1441 and HART 2431

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain and apply medium and low temperature systems operation; explain and apply ice machine and packaged refrigeration system operation; explain application and conversion procedures of refrigerants related to specific systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the refrigeration cycle by
    a. defining saturated refrigerant, superheat, and sub-cooling (1a, 1b, 2c, 2d);
    b. labeling components in the refrigeration cycle (1a, 1b, 2c, 2d);
    c. describing the function of each refrigeration system component (1a, 1b, 2c, 2d);
    d. showing refrigerant conditions in the refrigeration system (1a, 1b, 2b, 2c, 2d).
2. Describe applications of commercial refrigeration by
    a. identifying where commercial refrigeration is found (1a, 1b, 2c, 2d);
    b. listing the temperature ranges (1a, 1b);
    c. giving examples of products requiring refrigeration (1a, 1b).
3. Identify various commercial refrigeration systems by
    a. identifying a split system and a self-contained system (1a, 1b, 2c, 2d);
    b. differentiating between a split system and a self-contained system (1a, 1b, 2c, 2d, 2e);
    c. locating various fixtures in the lab area (1a, 1b, 2c, 2d, 2e);
    d. identifying an ice machine (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of various compressor types and designs by
    a. identifying a reciprocating, scroll, rotary, and screw compressor (1a, 1b, 2c, 2d);
    b. describing the operation of a reciprocating, scroll, rotary, and screw compressor (1a, 1b, 2c, 2d);
    c. identifying an open drive, semi hermetic, and hermetic compressor (1a, 1b, 2c, 2d);
    d. locating various compressor types in the lab area (1a, 1b, 2c, 2d);
    e. evaluating the performance of a compressor (1a, 1b, 2c, 2d, 2e);
    f. computing compression ratio (1a, 1b, 2c).
5. Perform service procedures on a working refrigeration system by
    a. explaining proper charging procedures (1a, 1b, 1c, 2c, 2d);
    b. adjusting the refrigerant and oil charge in a refrigeration system (1a, 1b, 1c, 2b, 2c, 2d);
    c. describing the effects of an undercharged and overcharged refrigeration system (1a, 1b, 2c, 2d);
    d. altering the refrigerant charge to create a change in system performance (1a, 1b, 1c, 2b, 2c, 2d).
6. Demonstrate an understanding of a pump down cycle by
    a. stating the purpose of the pump down cycle (1a, 1b);
    b. identifying the components that make up a pump down cycle (1a, 1b, 2c, 2d);
    c. determining the cut in, cut out, and differential settings on a low pressure switch (1a, 1b, 2c, 2d);
    d. adjusting a low pressure switch for proper operation (1a, 1b, 2b, 2c, 2d).
7. Demonstrate an understanding of refrigeration accessories by
    a. identifying types of refrigeration accessories (1a, 1b, 2c, 2d);
    b. explaining the purpose of various refrigeration accessories (1a, 1b, 2c, 2d);
    c. locating various refrigeration accessories in a refrigeration system (1a, 1b, 2c, 2d).
8. Demonstrate an understanding of refrigerant recovery, recycling, and reclamation by
    a. describing the application of refrigerant recovery, recycling, and reclamation (1a, 1b, 2c, 2d);
    b. differentiating recovery processes (1a, 1b, 2c, 2d);
    c. classifying required evacuation levels on different sizes of equipment (1a, 1b, 2c, 2d);
    d. performing a refrigerant recovery procedure in the lab area (1a, 1b, 1c, 2b, 2c, 2d, 2e).
9. Demonstrate an understanding of types of refrigerants by
    a. ranking refrigerants as to their harmfulness to the environment (1a, 1b, 2c, 2d);
    b. grouping refrigerants based on their temperature application (1a, 1b, 2c, 2d);
    c. defining temperature glide, including its effects (1a, 1b, 2c, 2d).
10. Demonstrate an understanding of condensers by
    a. describing various condenser types (1a, 1b, 2c, 2d);
    b. identifying air cooled, water cooled, and evaporative condensers (1a, 1b, 2c, 2d);
    c. explaining proper cleaning and maintenance procedures for condensers (1a, 1b, 2c, 2d);
    d. evaluating condenser performance on a working system (1a, 1b, 2c, 2d).
11. Demonstrate an understanding of condenser head pressure control by
    a. listing the methods of head pressure control (1a, 1b, 2c, 2d);
    b. identifying the components for various types of head pressure control (1a, 1b, 2c, 2d);
    c. adjusting head pressure controls (1a, 1b, 1c, 2c, 2d, 2e).
12. Demonstrate an understanding of evaporators by
    a. identifying different evaporator designs and types (1a, 1b, 2c, 2d);
    b. describing various evaporator types (1a, 1b, 2c, 2d);
    c. explaining the proper selection procedure of an evaporator (1a, 1b, 2c, 2d).
13. Demonstrate an understanding of evaporator defrost by
    a. explaining the methods of evaporator defrost (1a, 1b, 2c, 2d);
    b. identifying the components for various types of defrost systems (1a, 1b, 2c, 2d);
    c. determining if a defrost system is functioning properly (1a, 1b, 2c, 2d, 2e);
    d. adjusting a defrost time clock (1a, 1b, 1c, 2c, 2d, 2e).
14. Demonstrate an understanding of an evaporator pressure regulating (EPR) valve by
    a. describing the application of an EPR valve (1a, 1b, 2c, 2d);
    b. identifying an EPR valve (1a, 1b, 2c, 2d);
    c. adjusting an EPR valve (1a, 1b, 2c, 2d, 2e).
15. Demonstrate an understanding of the operation of a thermostatic expansion valve (TXV) by
    a. identifying a TXV (1a, 1b, 2c, 2d);
    b. defining internal and external equalization as it relates to TXV's (1a, 1b, 2c, 2d);
    c. explaining proper adjustment procedure for a TXV (1a, 1b, 2c, 2d);
    d. adjusting a TXV (1a, 1b, 2c, 2d, 2e);
    e. selecting a TXV (1a, 1b, 2c, 2d, 2e).
16. Demonstrate an understanding of capacity control by
    a. explaining five methods of capacity control (1a, 1b, 2c, 2d);
    b. defining compressor/evaporator balance (1a, 1b, 2c, 2d);
    c. describing operation of the different types of capacity control (1a, 1b, 2c, 2d);

d. identifying types of capacity control devices (1a, 1b, 2c, 2d);

e. adjusting capacity control devices (1a, 1b, 2c, 2d, 2e).

17. Demonstrate an understanding of an oil separator by

a. listing the types of oil separators (1a, 1b, 2c, 2d);

b. explaining the operation of an oil separator (1a, 1b, 2c, 2d);

c. locating an oil separator in a refrigeration system (1a, 1b, 2c, 2d);

d. describing other accessories that may be found being used with an oil separator (1a, 1b, 2c, 2d).

18. Demonstrate an understanding of an oil pressure failure safety switch by

a. explaining how to connect an oil pressure failure safety switch (1a, 1b, 2c, 2d);

b. identifying an oil pressure failure safety switch (1a, 1b, 2c, 2d);

c. measuring effective oil pressure (1a, 1b, 2c, 2d, 2e);

d. constructing an electrical circuit using an oil pressure failure safety switch (1a, 1b, 2c, 2d).

19. Demonstrate an understanding of an ice machine by

a. listing the types of ice machines (1a, 1b, 2c, 2d);

b. describing uses of cubed and flaked ice (1a, 1b, 2c, 2d);

c. differentiating a cubed from a flaked ice machine (1a, 1b, 2c, 2d);

d. explaining the operation of a cubed and flaked ice machine (1a, 1b, 2c, 2d);

e. identifying the parts of an ice machine (1a, 1b, 2c, 2d);

f. computing ice production (1a, 1b, 2c, 2d, 2e).

20. Demonstrate an understanding of proper refrigeration piping design and installation by

a. describing the types of fittings and piping used in refrigeration piping systems (1a, 1b, 2c, 2d);

b. evaluating a piping system (1a, 1b, 2c, 2d);

c. listing the minimum and maximum refrigerant flow velocities (1a, 1b, 2c, 2d);

d. describing the problems associated with poor piping practices (1a, 1b, 2c, 2d).

21. Demonstrate an understanding of troubleshooting procedures by

a. analyzing a system to determine its problem (1a, 1b, 2c, 2d, 2e);

b. breaking down areas of a system to focus on the problem (1a, 1b, 2c, 2d, 2e);

c. developing a process of elimination to determine the problem with a system (1a, 1b, 2c, 2d);

d. evaluating the findings of an improperly operating system to that of a properly working system (1a, 1b, 1c, 2c, 2d, 2e);

e. locating the source of the problem using test equipment (1a, 1b, 2c, 2d, 2e).

HART 2443 - Industrial Air Conditioning

General

Course Key
10543

Course Rubric
HART

Course Number
2443

Course Title
Industrial Air Conditioning

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
7

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-7) A study of components, accessories, applications, and installation of air conditioning systems above 25 tons capacity. Recommended Prerequisite: HART-1441

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take hart-1441;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): HART 1441

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the sequence of operation for industrial systems and its accessories; identify components relative to industrial systems including chilled water systems; troubleshoot systems; and perform program maintenance procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the refrigeration cycle by

a. defining saturated refrigerant, superheat, and sub-cooling (1a, 1b, 2c, 2d);

b. labeling components in the refrigeration cycle (1a, 1b, 2c, 2d);

c. describing the function of each refrigeration system component (1a, 1b, 2c, 2d);

d. showing refrigerant conditions in the refrigeration system (1a, 1b, 2b, 2c, 2d).

2. Describe applications of industrial air conditioning by

a. identifying where industrial applications are found (1a, 1b, 2c, 2d);

b. giving examples of facilities requiring industrial air conditioning (1a, 1b).

3. Identify various industrial air conditioning systems by

a. identifying industrial HVAC system types (1a, 1b, 2c, 2d);

b. differentiating between industrial HVAC system types (1a, 1b, 2c, 2d, 2e);

c. locating various fixtures in the lab area (1a, 1b, 2c, 2d, 2e).

4. Demonstrate an understanding of various compressor types and designs by

a. identifying a reciprocating, scroll, rotary, screw, and centrifugal compressor (1a, 1b, 2c, 2d);

b. describing the operation of a reciprocating, scroll, rotary, screw, and centrifugal compressor (1a, 1b, 2c, 2d);

c. identifying an open drive, semi hermetic, and hermetic compressor (1a, 1b, 2c, 2d);

d. locating various compressor types in the lab area (1a, 1b, 2c, 2d).

5. Perform service procedures on a working air conditioning system by

a. explaining proper charging procedures (1a, 1b, 1c, 2c, 2d);

b. adjusting the refrigerant and oil charge in an air conditioning system (1a, 1b, 1c, 2b, 2c, 2d);

c. describing the effects of an undercharged and overcharged air conditioning system (1a, 1b, 2c, 2d);

d. altering the refrigerant charge to create a change in system performance (1a, 1b, 1c, 2b, 2c, 2d).

6. Demonstrate an understanding of refrigerant recovery, recycling, and reclamation by

a. describing the application of refrigerant recovery, recycling, and reclamation (1a, 1b, 2c, 2d);

b. differentiating recovery processes (1a, 1b, 2c, 2d);

c. classifying required evacuation levels on different sizes of equipment (1a, 1b, 2c, 2d);

d. performing a refrigerant recovery procedure in the lab area (1a, 1b, 1c, 2b, 2c, 2d, 2e).

7. Demonstrate an understanding of types of refrigerants by
    a. ranking refrigerants as to their harmfulness to the environment (1a, 1b, 2c, 2d);
    b. grouping refrigerants based on their temperature application (1a, 1b, 2c, 2d).
8. Demonstrate an understanding of condensers by
    a. describing various condenser types (1a, 1b, 2c, 2d);
    b. identifying air cooled, water cooled, and evaporative condensers (1a, 1b, 2c, 2d);
    c. explaining proper cleaning and maintenance procedures for condensers (1a, 1b, 2c, 2d);
    d. evaluating condenser performance on a working system (1a, 1b, 2c, 2d).
9. Demonstrate an understanding of evaporators by
    a. identifying different evaporator designs and types (1a, 1b, 2c, 2d);
    b. describing various evaporator types (1a, 1b, 2c, 2d);
    c. explaining the proper selection procedure of an evaporator (1a, 1b, 2c, 2d).
10. Demonstrate an understanding of a cooling tower by
    a. describing the application of various cooling tower types (1a, 1b, 2c, 2d);
    b. identifying cooling tower types (1a, 1b, 2c, 2d).
11. Demonstrate an understanding of the operation of a thermostatic expansion valve (TXV) by
    a. identifying a TXV (1a, 1b, 2c, 2d);
    b. defining internal and external equalization as it relates to TXV's (1a, 1b, 2c, 2d);
    c. explaining proper adjustment procedure for a TXV (1a, 1b, 2c, 2d);
    d. adjusting a TXV (1a, 1b, 2c, 2d, 2e);
    e. selecting a TXV (1a, 1b, 2c, 2d, 2e).
12. Demonstrate an understanding of proper condenser water piping design and installation by
    a. describing the types of fittings and piping used in air conditioning condenser water piping (1a, 1b, 2c, 2d);
    b. evaluating a condenser water piping system (1a, 1b, 2c, 2d);
    c. listing the minimum and maximum water flow velocities (1a, 1b, 2c, 2d);
    d. describing the problems associated with poor piping practices (1a, 1b, 2c, 2d).
13. Demonstrate an understanding of proper chilled water piping design and installation by
    a. describing the types of fittings and piping used in air conditioning chilled piping (1a, 1b, 2c, 2d);
    b. evaluating a chilled water piping system (1a, 1b, 2c, 2d);
    c. listing the minimum and maximum water flow characteristics (1a, 1b, 2c, 2d);
    d. describing the problems associated with poor piping practices (1a, 1b, 2c, 2d).
14. Demonstrate an understanding of troubleshooting procedures by
    a. analyzing a system to determine its problem (1a, 1b, 2c, 2d, 2e);
    b. breaking down areas of a system to focus on the problem (1a, 1b, 2c, 2d, 2e);
    c. developing a process of elimination to determine the problem with a system (1a, 1b, 2c, 2d);
    d. evaluating the findings of an improperly operating system to that of a properly working system (1a, 1b, 1c, 2c, 2d, 2e);
    e. locating the source of the problem using test equipment (1a, 1b, 2c, 2d, 2e).

HART 2445 - Residential AC Systems Design

General

Course Key
9604

Course Rubric	Course Number	Course Title
HART	2445	Residential Air Conditioning Systems Design

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Study of the properties of air and results of cooling, heating, humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculate heat loss and heat gain; size heating and cooling equipment to the structure; read and interpret detailed HVAC design plans; perform a load calculation using industry standards; and design a complete air distribution system including ventilation requirements and indoor air quality.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Evaluate environmental air conditions using psychrometric standards by
    a. locating the various indices on a psychrometric chart (1a, 1b, 2c);
    b. determining air conditions on a psychrometric chart (1a, 1b, 2c);
    c. predicting supply air conditions on a psychrometric chart (1a, 1b, 2c);
    d. calculating the required BTU's required for specific temperature change (1a, 1b, 2c, 2d).
2. Formulate HVAC system size for a residential structure by
    a. evaluating building materials (1a, 1b, 2c, 2d);
    b. evaluating thermal resistance (1a, 1b, 2c, 2d);
    c. locating the appropriate table values in the Manual J (1a, 1b, 2c, 2d);
    d. determining the correct construction numbers for building materials (1a, 1b, 2c, 2d);
    e. calculating structure loss and gains (1a, 1b, 2c, 2d);
    f. completing the Manual J form 1 (1a, 1b, 2c, 2d, 2e);
    g. determining equipment size requirements (1a, 1b, 2c, 2d, 2e).
3. Design an HVAC duct system by
    a. selecting appropriate materials (1a, 1b, 2c, 2d);
    b. calculating duct static losses (1a, 1b, 2c, 2d);
    c. calculating duct sizes (1a, 1b, 2c, 2d);
    d. estimating duct sizing using a ductulator (1a, 1b, 2c, 2d);
    e. determining correct grill type and size (1a, 1b, 2c, 2d).
4. Calculate a job price quote for a HVAC system by
    a. listing required installation materials (1a, 1b, 2a, 2d);
    b. evaluating material cost and markup (1a, 1b, 2a, 2e);
    c. determining expected labor costs (1a, 1b, 2a, 2d, 2e);
    d. summarizing information into a job price quote (1a, 1b, 2a, 2e).

HART 2449 - Heat Pumps

General

Course Key
4543

Course Rubric
HART

Course Number
2449

Course Title
Heat Pumps

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Required Prerequisites: HART-1403 HART-1441 HART-1445 and HART-2445

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take HART-1403 HART-1441 HART-1445 HART-2445;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): HART 1403 HART 1441 HART 1445 and HART 2445

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain a reverse cycle system; list the mechanical and electrical components for the heat pump operation; and explain the operation of heat pump modes including cooling, heating, defrost, emergency heat, and auxiliary heat mode. Identify and explain different methods of accomplishing defrost; charge a system correctly in the heating and cooling mode; troubleshoot electrical and mechanical components; perform tests for adequate air flow; and determine balance point and coefficiency of performance (C.O.P.); and define attributes of geothermal heat pump systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic heat pump refrigerant cycle by
    a. describing the heat pump refrigerant cycle (1a, 1b, 2c);
    b. sketching the heat pump refrigerant cycle (1a, 1b, 2c);
    c. distinguishing the heat pump refrigerant cycle from standard cooling cycle (1a, 1b, 2c).
2. Demonstrate an understanding of the specialized components of a heat pump system by
    a. locating the heat pump specific components (1a, 1b, 2c);
    b. explaining the purpose of heat pump specific components (1a, 1b, 2c, 2d);
    c. sketching the location of heat pump specific components (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of heat pump thermostats by
    a. describing the operation of heat pump thermostats (1a, 1b, 2c, 2d);
    b. describing the low voltage wiring to a heat pump thermostat (1a, 1b, 2c, 2d);
    c. sketching the low voltage wiring to a heat pump thermostat (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of reversing valves by
    a. describing the operation, installation, and diagnosis of reversing valves (1a, 1b, 2a, 2d);
    b. sketching the location of reversing valves (1a, 1b, 2a, 2d);
    c. listing required installation materials (1a, 1b, 2a, 2d).
5. Demonstrate an understanding of the heat pump defrost cycle by
    a. describing the purpose and sequence of a heat pump defrost cycle (1a, 1b, 2a, 2d);
    b. listing the basic components of a heat pump defrost cycle (1a, 1b, 2a, 2d);
    c. explaining the operation and wiring of the defrost relay (1a, 1b, 2a, 2d).
6. Demonstrate an understanding of defrost controls by
    a. explaining the operation and wiring of defrost controls (1a, 1b, 2a, 2d);
    b. listing the 4 categories of defrost controls (1a, 1b, 2a, 2d);
    c. identifying defrost controls by category (1a, 1b, 2a, 2d).
7. Demonstrate an understanding of heat pump electrical circuits by
    a. explaining the electrical sequence of operation during all 4 modes of a heat pump system (1a, 1b, 2a, 2d);
    b. listing the electrical components of a heat pump system (1a, 1b, 2a, 2d);
    c. sketching the electrical diagram of a heat pump system (1a, 1b, 2a, 2d).
8. Demonstrate an understanding of the balance point of a heat pump system by
    a. defining heat pump balance point (1a, 1b, 2a, 2d);
    b. determining heat pump balance point using a graph (1a, 1b, 2a, 2d);
    c. analyzing the data yielded by the balance point graph (1a, 1b, 2a, 2d).
9. Demonstrate an understanding of geothermal heat pumps by
    a. explaining the operation and installation of geothermal heat pump systems (1a, 1b, 2a, 2d);
    b. listing the components of a geothermal heat pump system (1a, 1b, 2a, 2d);
    c. sketching the refrigerant and water cycles of a geothermal heat pump system (1a, 1b, 2a, 2d).
10. Demonstrate an understanding of troubleshooting techniques for heat pumps by
    a. explaining the troubleshooting flow chart (1a, 1b, 2a, 2d, 2e);
    b. demonstrating troubleshooting techniques on computer simulation (1a, 1b, 2a, 2e);
    c. using troubleshooting techniques on practical lab equipment (1a, 1b, 2a, 2e).

HECO 1322 - Nutrition and Diet Therapy

General

Course Key
16050

Course Rubric
HECO

Course Number
1322

Course Title
Nutrition and Diet Therapy

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

HIST 1301 - United States History I Honors

General

Course Key
16056

Course Rubric
HIST

Course Number
1301

Course Title
United States History I Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/ Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government. Required Prerequisite: ENGL-1301 with a grade of C or TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 1301 - United States History I

General

Course Key
16055

Course Rubric
HIST

Course Number
1301

Course Title
United States History I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/ Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government. Required Prerequisite: ENGL-1301 with a grade of C or TSI met in reading and writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 1302 - United States History II Honors

General

Course Key
16057

Course Rubric
HIST

Course Number
1302

Course Title
United States History II Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, and the Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy. Required Prerequisite: ENGL-1301 with a grade of C or TSI met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description in prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 1302 - United States History II

General

Course Key
16058

Course Rubric
HIST

Course Number
1302

Course Title
United States History II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, and the Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy. Required Prerequisite: ENGL-1301 with a grade of C or TSI met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2301 - Texas History

General

Course Key
16059

Course Rubric
HIST

Course Number
2301

Course Title
Texas History

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the political, social, economic, cultural, and intellectual history of Texas from the pre-Columbian era to the present. Themes that may be addressed in Texas History include: Spanish colonization and Spanish Texas; Mexican Texas; the Republic of Texas; statehood and secession; oil, industrialization, and urbanization; civil rights; and modern Texas. Required Prerequisite: ENGL-1301 with minimum grade of C or TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2311 - Western Civilization I

General

Course Key
16053

Course Rubric
HIST

Course Number
2311

Course Title
Western Civilization I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from human origins to the 17th century. Themes that should be addressed in Western Civilization I include the cultural legacies of Mesopotamia, Egypt, Greece, Rome, Byzantium, Islamic civilizations, and Europe through the Middle Ages, Renaissance, and Reformations. Required Prerequisite: ENGL-1301 with minimum grade of C or TSI Met in Reading and writing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(12215) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

HIST 2312 - Western Civilization II

General

Course Key
16054

Course Rubric
HIST

Course Number
2312

Course Title
Western Civilization II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from the 17th century to the modern era. Themes that should be addressed in Western Civilization II include absolutism and constitutionalism, growth of nation states, the Enlightenment, revolutions, classical liberalism, industrialization, imperialism, global conflict, the Cold War, and globalism. Required Prerequisite: ENGL-1301 with minimum grade of C or TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(12215) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2321 - World Civilizations I

General

Course Key
16051

Course Rubric
HIST

Course Number
2321

Course Title
World Civilizations I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the emergence of human cultures through the 15th century. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include the emergence of early societies, the rise of civilizations, the development of political and legal systems, religion and philosophy, economic systems and trans-regional networks of exchange. The course emphasizes the development, interaction and impact of global exchange. Required Prerequisite: ENGL-1301 with minimum grade of C or TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(12215) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2322 - World Civilizations II

General

Course Key
16052

Course Rubric
HIST

Course Number
2322

Course Title
World Civilizations II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the 15th century to the present. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include maritime exploration and transoceanic empires, nation/state formation and industrialization, imperialism, global conflicts and resolutions, and global economic integration. The course emphasizes the development, interaction and impact of global exchange. Required Prerequisite: ENGL-1301 with minimum grade of C or TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(12215) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

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A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2327 - Mexican-American History I

General

Course Key
16062

Course Rubric
HIST

Course Number
2327

Course Title
Mexican American History I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicanx. Periods include early indigenous societies, conflict and conquest, early European colonization and empires, New Spain, early revolutionary period, Mexican independence and nation building, United States expansion to the United States-Mexico War Era. Themes to be addressed are mestizaje and racial formation in the early empire, rise and fall of native and African slavery, relationship to early global economies, development of New Spain's/Mexico's northern frontier, gender and power, missions, resistance and rebellion, emergence of Mexican identities, California mission secularization, Texas independence, United States' wars with Mexico, and the making of borders and borderlands. (May be applied to U.S. History requirement.) Required Prerequisite: ENGL-1301 with minimum grade of C or TSI met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2328 - Mexican-American History II

General

Course Key
16063

Course Rubric
HIST

Course Number
2328

Course Title
Mexican American History II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicanx. Periods include the United States-Mexico War Era, incorporation of Northern Mexico into the United States, Porfirian Mexico, and the nineteenth century American West, 1910 Mexican Revolution and Progressive Era, the Great Depression and New Deal, World War II and the Cold War, Civil Rights Era, Conservative Ascendancy, the age of NAFTA and turn of the 21st Century developments. Themes to be addressed are the making of borders and borderlands, impact of Treaty of Guadalupe Hidalgo, gender and power, migration and national identities, citizenship and expulsion, nineteenth century activism and displacement, industrialization and the making of a transnational Mexican working class, urbanization and community formation, emergence of a Mexican American Generation, war and citizenship, organized advocacy and activism, Chicano Movement, changing identifications and identities, trade and terrorism. (May be applied to U.S. History requirement.) Required Prerequisite: ENGL-1301 with minimum grade of C or TSI met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

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A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2381 - African American History I

General

Course Key
16060

Course Rubric
HIST

Course Number
2381

Course Title
African American History I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, and intellectual history of people of African descent in the formation and development of the United States to the Civil War/Reconstruction period. African American History I includes the study of African origins and legacy, trans-Atlantic slave trade, and the experiences of African Americans during Colonial, Revolutionary, Early National, Antebellum, and the Civil War/Reconstruction Eras. This course will enable students to understand African American history as an integral part of U.S. history. (May be applied to the U.S. History requirement.) Required Prerequisite: ENGL-1301 with minimum grade of C or TSI Met in Reading and Writing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(12218) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(12215) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take ENGL-1301(12215) INRW-0114 INRW-0399(9631) or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

HIST 2382 - African American History II

General

Course Key
16061

Course Rubric
HIST

Course Number
2382

Course Title
African American History II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the social, political, economic, cultural, and intellectual history of people of African descent in the United States from the Civil War/Reconstruction period to the present. African American History II examines segregation, disenfranchisement, civil rights, migrations, industrialization, world wars, the Harlem Renaissance and the conditions of African Americans in the Great Depression, Cold War and post-Cold War eras. This course will enable students to understand African American history as an integral part of U.S. history. (May be applied to the U.S. History requirement.) Required Prerequisite: ENGL-1301 with minimum grade of C or TSI Met in Reading and Writing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

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A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

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(SELECTED CRSES): Take 3 of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ENGL-1301; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

HITT 1253 - Legal and Ethical Aspects of Health Info

General

Course Key
452

Course Rubric
HITT

Course Number
1253

Course Title
Legal and Ethical Aspects of Health Information

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Concepts of privacy, security, confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply local, state, and federal standards and regulations for the control and use of health information; demonstrate appropriate health information disclosure practices; and identify and discuss ethical issues in health care.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of major components and principles of the U.S. legal system by
    a. identifying civil law origins, functions, and types (1a, 1b, 2c);
    b. identifying public law origin, functions, and types (1a, 1b, 2c);
    c. describing organization of U.S. and Texas legislative systems (1a, 1b, 2c);
    d. describing organization of U.S. and Texas judicial systems (1a, 1b, 2c);
    e. identifying sources of U.S. and Texas laws (1a, 1b, 2c).

2. Demonstrate an understanding of principles of liability as they pertain to health care by
    a. describing corporate liability legislation (1a, 1b, 2c);
    b. describing medical negligence categories and liability (1a, 1b, 2c);
    c. analyzing medical negligence risk factors (1a, 1b, 2c);
    d. discussing civil trial procedures (1a, 1b, 2c).

3. Demonstrate an understanding of health care consent and disclosure guidelines by
    a. describing accreditation and statutory acknowledgement and consent and disclosure guidelines (1a, 1b, 2c);
    b. describing general and informed consent requirements (1a, 1b, 2c);
    c. identifying U.S. and Texas reporting mandates (1a, 1b, 2c);
    d. comparing types of advanced directives, addressing application, and requirements (1a, 1b, 2c).

4. Produce written and oral presentations on assigned topics by
    a. using legal and health care resources to prepare written assignments (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. presenting a self-prepared PowerPoint presentation on an assigned bioethical issue (1a, 1b, 1c, 2a, 2b, 2c, 2e).

HITT 1301 - Health Data Content and Structure

General

Course Key
10550

Course Rubric
HITT

Course Number
1301

Course Title
Health Data Content and Structure

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information including content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze health record content; describe health information management department function and purpose; differentiate the various types of health care facilities and their records; and identify the various licensing and regulatory agencies in the healthcare industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the role of health care delivery systems by
    a. describing the historical development of medical records and hospitals (1a, 1b, 2c);
    b. comparing health care facility types, ownership categories, and department functions (1a, 1b, 2c);
    c. distinguishing among patient classifications (1a, 1b, 2c).
2. Demonstrate an understanding of the role of the American Health Information Management Association (AHIMA) by
    a. describing AHIMA's history, organizational structure, and responsibilities (1a, 1b, 2c);
    b. identifying AHIMA's membership and certification categories (1a, 1b, 2c).
3. Analyze health records for completion by
    a. identifying sources of documentation requirements (1a, 1b, 2c);
    b. comparing documentation requirements for acute care and specialty facilities (1a, 1b, 2c);
    c. performing qualitative and quantitative analysis (1a, 1b, 2c).
4. Demonstrate an understanding of primary and secondary health information maintenance, retention, and disclosure guidelines by
    a. describing health information security, confidentiality, disclosure, and retention guidelines (1a, 1b, 2c, 2e);
    b. applying straight numeric and terminal digit order filing principles (1a, 1b, 2c);
    c. computing shelving requirements (1a, 1b, 2c).
5. Demonstrate an understanding of health information and forms development by
    a. describing the purpose of forms control (1a, 1b, 2c);
    b. applying forms design elements (1a, 1b, 2c, 2e);
    c. comparing input and output mechanisms (1a, 1b, 2c, 2e).
6. Prepare a research presentation by
    a. presenting a self-prepared PowerPoint presentation on an assigned topic utilizing the internet and TCC library databases (1a, 1b, 2c, 2e);
    b. preparing research presentation outline and bibliography (computer generated) (1a, 1b, 2c, 2e).

HITT 1311 - Health Information Systems

General

Course Key
12126

Course Rubric
HITT

Course Number
1311

Course Title
Health Information Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to health IT standards, health-related data structures, software applications, and enterprise architecture in health care and public health. Recommended Prerequisite: Any Computer Applications Course

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): Any Computer Applications Course

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe general functions, purposes and benefits of health information systems; describe the evolution and adoption of health information systems; compare health information systems in terms of their ability to support the requirements of a health care enterprise; explain the impact of electronic health records on reporting outcomes; explain strategies to minimize major barriers to the adoption of electronic health records; explain the principles of health care data exchange and standards; review workflow design and assessment, and their relationship to patient care, productivity and data analysis; propose the hardware, software, operating system and networking considerations necessary for effective data storage and use in health care organizations; and utilize the tools and techniques for collecting, storing, securing, retrieving, and reporting health care data.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a basic understanding of health information systems in a provider setting by
    a. explaining the origins of the electronic health record (1a, 2c);
    b. defining health information technology (1a, 1b, 2c, 2d, 2e);
    c. identifying the key elements in government programs for incentivizing the use of the electronic health information system (1a, 1b, 2a, 2c);
    d. describing the conceptual model of electronic health information system in a provider setting (1a, 1b, 2c, 2d, 2e).
2. Demonstrate an understanding of information systems theory by
    a. explaining general systems theory and its relevance to the components of health information technology (1a, 1b, 2c);
    b. describing the general information theory as it relates to developing data infrastructure (1a, 1b, 2c, 2d).
3. Construct a strategic plan for health information technology by
    a. defining the purpose and scope of strategic planning for health IT (1a, 1b, 2a, 2c, 2d, 2e);
    b. discussing the strategic planning process (1a, 1b, 1c, 2a, 2c);
    c. recognizing the tools to manage change in order to effect clinical transformation expected from health IT (1b, 1c, 2d, 2e);
    d. explaining how to construct a migration path to a health information system (1a, 1b, 2a, 2c, 2d, 2e);
    e. identifying critical success factors in health IT strategic planning (1b, 2c, 2d, 2e).
4. Demonstrate an understanding of data infrastructure in a health information system by
    a. defining data types and data formats (1a, 1b, 2c, 2d, 2e);
    b. distinguishing between types of data infrastructure (1b, 2c, 2e);
    c. defining data management (1a, 1b, 2c);
    d. describing the techniques of data modeling (1a, 1b, 1c, 2c, 2e);
    e. applying data types and formatting principles (1a, 1b, 2c, 2e);
    f. constructing a data dictionary (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of health information technology by
    a. identifying the input/output, storage, processing, network, and hardware associated with health information systems (1a, 1b, 2c, 2d, 2e);
    b. identifying the types of software that support health information systems (1a, 1b, 2c, 2d, 2e);
    c. recommending improvements to usability and data quality in health IT (1a, 1b, 2b, 2c, 2d, 2e);
    d. evaluating strategies to address emerging technologies (1a, 1b, 2c, 2e).
6. Demonstrate understanding in privacy and security in health information systems by
    a. explaining the federal privacy and security standardization efforts (1a, 1b, 2b, 2c, 2e);
    b. discussing the steps necessary to manage a breach of protected health information (1a, 1b, 1c, 2b, 2c, 2e);
    c. summarizing administrative and physical factors that reduce risks to privacy and security in a health IT environment (1a, 1b, 2c);
    d. recommending strategies for addressing privacy and security threats (1a, 1b, 2b, 2c, 2d, 2e).

7. Demonstrate understanding of interoperability in health information systems by
    a. defining interoperability (1a, 1b, 2c, 2d, 2e);
    b. describing technical standards for interoperability (1a, 1b, 2c, 2e);
    c. applying technical standards for interoperability (1a, 1b, 2a, 2c, 2d, 2e);
    d. differentiating forms of health information exchange architectures (1b, 1b, 2c, 2d, 2e);
    e. assessing the importance of interoperability (1a, 1b, 2b, 2c, 2d, 2e).

HITT 1341 - Coding and Classification Systems

General

Course Key
10562

Course Rubric	Course Number	Course Title
HITT	1341	Coding and Classification Systems
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Fundamentals of coding rules, conventions, and guidelines using clinical classification systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply nomenclatures and classification systems and assign codes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the structure of the ICD-9-CM Coding Classification System by
    a. explaining the history of coding (1a, 1b, 2c);
    b. differentiating between nomenclature and classification (1a, 1b, 2c, 2d, 2e);
    c. identifying the format of the ICD-9-CM coding system (1a, 1b, 2c, 2d, 2e);
    d. identifying the difference between ICD-9-CM and ICD-10 (1b, 1c, 2b).
2. Demonstrate understanding of the ICD-9-CM coding by
    a. explaining ICD-9-CM convention (1a, 1b, 2c);
    b. identifying Uniform Hospital Discharge Data Sets (UHDDS) (1a, 1b, 2c);
    c. listing basic coding steps (1a, 1b, 2c);
    d. applying basic coding guidelines for disease and injuries (1a, 1b, 2c, 2d, 2e);
    e. employing coding guidelines for operations and procedures (1a, 1b, 2c, 2d, 2e).
3. Demonstrate ability to code disease processes and injuries associated with specific body systems by
    a. explaining the coding guidelines for specific diseases and injuries (1a, 1b, 2c);
    b. defining principal diagnosis (1a, 1b, 2c, 2d, 2e);
    c. displaying ability to assign ICD-9-CM codes for diseases and injuries (1a, 1b, 2c, 2d, 2e);
    d. displaying ability to sequence ICD-9-CM according to UHDDS guidelines (1a, 1b, 2c, 2d, 2e).
4. Display ability to code procedures and operations associated with specific body systems by
    a. explaining the coding guidelines for specific procedures and operations (1a, 1b, 2c);
    b. defining principal procedure (1a, 1b, 2c);
    c. displaying ability to assign ICD-9-CM procedure codes (1a, 1b, 2c, 2e);
    d. displaying ability to sequence ICD-9-CM according to UHDDS guidelines (1a, 1b, 2c, 2e).

HITT 1342 - Ambulatory Coding

General

Course Key
10552

Course Rubric	Course Number	Course Title
HITT	1342	Ambulatory Coding
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Fundamentals of ambulatory coding rules, conventions, and guidelines.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply nomenclatures and classification systems and assign codes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the structure of the HCPCS Coding System by
    a. explaining the history of the HCPCS coding system (1a, 1b, 2c);
    b. differentiating between nomenclature and classification (1a, 1b, 2c, 2d, 2e);
    c. identifying the format of each level of the HCPCS coding system (1a, 1b, 2c, 2d, 2e);
    d. explaining the use of each level of the HCPCS Coding System (1a, 1b, 2c, 2d);
    e. outlining HCPCS conventions (1a, 1b, 2c);
    f. differentiating between ICD-9-CM and HCPCS coding systems (1b, 1c, 2b).
2. Demonstrate understanding of coding physician services by
    a. identifying the types of physician services in Level 1 of HCPCS (1a, 1b, 2c);
    b. listing the steps for selecting the level of evaluation and management service (1a, 1b, 2c);
    c. determining the level of evaluation and management service provided (1a, 1b, 2c, 2e);
    d. displaying ability to assign evaluation and management codes (1a, 1b, 2c, 2e).
3. Demonstrate understanding of coding anesthesia services by
    a. identifying the structure of anesthesia section in Level 1 of HCPCS;
    b. outlining the structure of anesthesia section in HCPCS, Level 1 (1a, 1b, 2c);
    c. determining the anesthesia services provided (1a, 1b, 2c, 2d, 2e);
    d. displaying ability to assign Level 1 HCPCS codes for anesthesia services (1a, 1b, 2c, 2d, 2e).
4. Demonstrate understanding of coding surgical services by
    a. identifying the structure of surgery section in Level 1 of HCPCS;
    b. outlining the structure of surgery section in HCPCS, Level 1 (1a, 1b, 2c);
    c. determining the surgical services provided (1a, 1b, 2c, 2d, 2e);
    d. displaying ability to assign Level 1 HCPCS surgery codes for physician services (1a, 1b, 2c, 2d, 2e);
    e. displaying ability to assign Level 1 HCPCS surgery codes for hospital services (1a, 1b, 2c, 2d, 2e).
5. Demonstrate understanding of coding radiology services by
    a. outlining the structure of radiology section in HCPCS, Level 1 (1a, 1b, 2c);
    b. determining the radiology service provided (1a, 1b, 2c, 2d, 2e);
    c. displaying ability to assign Level 1 HCPCS radiology codes for physician services (1a, 1b, 2c, 2d, 2e);
    d. displaying ability to assign Level 1 HCPCS radiology codes for hospital services (1a, 1b, 2c, 2d, 2e).
6. Demonstrate understanding of coding pathology and laboratory services by
    a. identifying the structure of pathology and lab section in Level 1 of HCPCS (1a, 1b, 2c);
    b. outlining the structure of pathology and lab section in HCPCS, Level 1 (1a, 1b, 2c);
    c. determining the pathology and laboratory services provided (1a, 1b, 2c, 2d, 2e);
    d. displaying ability to assign Level 1 HCPCS codes for pathology and laboratory services (1a, 1b, 2c, 2d, 2e).
7. Demonstrate understanding of coding medicine services by
    a. identifying the structure of the medicine section in Level 1 of HCPCS (1a, 1b, 2c);
    b. outlining the structure of medicine section in HCPCS, Level 1 (1a, 1b, 2c);
    c. determining the medicine services provided (1a, 1b, 2c, 2d, 2e);
    d. displaying ability to assign Level 1 HCPCS codes for medicine services (1a, 1b, 2c, 2d, 2e).

HITT 1345 - Health Care Delivery Systems

General

Course Key
10578

Course Rubric
HITT

Course Number
1345

Course Title
Health Care Delivery Systems

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify components and functions of multiple health care delivery systems to include accreditation, licensure, regulations, payment, and reimbursement systems; describe routine institutional statistics; interpret health care data; prepare health care data for presentation purposes; and evaluate reliability and validity of health care data.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the three measures of central tendency by
    a. defining mean, median, and mode (1a, 1b, 2c);
    b. identifying the relationship between mean, median, and mode (1a, 1b, 2d);
    c. computing mean, median, and mode (1a, 1b, 2c, 2e).

2. Demonstrate knowledge of hospital specific statistical data by
    a. defining rate (1a, 1b, 2c);
    b. defining percentage (1a, 1b, 2c);
    c. outlining statistic preparation steps (1a, 1b, 2b, 2c);
    d. identifying primary statistic sources (1a, 1b, 2c);
    e. differentiating between intra-hospital transfer and discharge transfer (1a, 1b, 2c).

3. Demonstrate understanding of hospital census by
    a. distinguishing between a day of leave of absence and leave of absence (1a, 1b, 2c);
    b. differentiating between inpatient census and daily inpatient census (1a, 1b, 2c);
    c. listing inpatient census taking conventions (1a, 1b, 2c);
    d. citing newborn transfer admission category (1a, 1b, 2c);
    e. computing inpatient census (1a, 1b, 2a, 2c, 2d);
    f. computing total inpatient service days (1a, 1b, 2a, 2c, 2d);
    g. computing average daily inpatient census (1a, 1b, 2a, 2c, 2d).

4. Demonstrate understanding of hospital occupancy rates by
    a. defining occupancy rate (1a, 1b, 2c);
    b. finding inpatient bed count (1a, 1b, 2c);
    c. identifying the elements required to compute occupancy rate (1a, 1b, 2c);
    d. computing occupancy rate (1a, 1b, 2a, 2c, 2d).

5. Demonstrate understanding of hospital mortality rates by
    a. identifying the elements required to compute mortality rates (1a, 1b, 2c);
    b. differentiating between net death rate and gross death rate (1a, 1b, 2c);
    c. contrasting hospital neonatal death and hospital fetal death (1a, 1b, 2c);
    d. computing hospital mortality rates (1a, 1b, 2a, 2c, 2d);
    e. modifying formula to determine unconventional statistical data (1a, 1b, 2a, 2c, 2d).

6. Demonstrate understanding of hospital autopsy rates by
    a. identifying the elements required to compute autopsy rates (1a, 1b, 2c);
    b. differentiating net rate, gross, and hospital autopsy rates (1a, 1b, 2c);
    c. computing hospital autopsy rates (1a, 1b, 2a, 2c, 2d).

7. Demonstrate understanding of other key miscellaneous statistical data by
    a. defining key terms (1a, 1b, 2c);
    b. choosing the appropriate formula (1a, 1b, 2c);
    c. identifying the key elements of the formulas (1a, 1b, 2c);

d. computing miscellaneous hospital statistics (1a, 1b, 2a, 2c, 2d).

8. Demonstrate understanding of the purpose, function, and limitations of various data displays by
    a. constructing a table displaying the data when given selected data (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing calculations with the Microsoft Office Excel and Access applications (2c, 2e);
    c. analyzing information derived from Microsoft Office applications (1a, 1b, 2a, 2c, 2d, 2e);
    d. developing probable explanations based on interpretation of the data (1a, 1b, 2c).
9. Demonstrate ability to present oral presentations of various health care topics by
    a. displaying ability to research health care professions and health care trends in the United States (1a, 1c, 2c);
    b. evaluating the role of health care professions (1a, 1b, 1c, 2c);
    c. identifying a current health care trend (1a, 1b, 2c);
    d. preparing an oral presentation on a health care profession and current trend (1a, 1b, 1c, 2c);
    e. presenting an oral presentation on a health care profession and a current trend (1a, 1b, 1c).
10. Demonstrate understanding of health care delivery systems in the United States by
    a. defining key terms in health care delivery (1a, 1b, 2c);
    b. explaining the role of information systems in health care (1a, 1b, 2c);
    c. identifying the function of the electronic health record in health care delivery (1a, 1b);
    d. identifying various types of managed care (1a, 1b, 2c).

HITT 2149 - RHIT Competency Review

General

Course Key
12127

Course Rubric	Course Number	Course Title
HITT	2149	RHIT Competency Review
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
1	0	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-2) Review Health Information Technology (HIT) competencies, skills, and knowledge.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform self-assessment of HIT competencies; resolve learning gaps.

Students will demonstrate competency in the six domains of the Registered Health Information Technology (RHIT) Certification Exam curriculum: (1) health data content, data structure, and information governance; (2) access, disclosure, privacy, and security; (3) data analytics; (4) revenue cycle management; (5) health information compliance; (6) leadership.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of health data content, data structure, and data governance by
    a. defining the legal health record (1a, 1b);
    b. applying health information guidelines (1a, 1b, 2a);
    c. auditing content and completion of the legal health record (1a, 1b, 2e);
    d. maintaining secondary health information (1a, 1b, 2a, 2d, 2e);
    e. coordinating document control (1a, 1b, 2b);
    f. maintaining the Master Patient Index (2c, 2d, 2e).
2. Demonstrate an understanding of access, disclosure, privacy, and security of patient information by
    a. applying laws and regulations in managing disclosure of patient health information (1a, 1b, 2c);
    b. determining right of access to the legal health record (1a, 1b, 1c, 2c, 2e);
    c. conducting privacy and security audits (1a, 1b, 2c, 2d, 2e);
3. Demonstrate competency in data analytics and use by
    a. abstracting and analyzing patient data (1a, 1b, 1c);
    b. analyzing privacy and security audits (1a, 1b, 2c, 2d);
    c. creating data reports (1a, 1b, 2c, 2d);
    d. compiling healthcare statistics (1a, 1b, 2c);
    e. analyzing healthcare statistics (1a, 1b, 2c, 2d, 2e).
4. Demonstrate competency in revenue cycle management by
    a. converting medical information to alpha-numeric information (coding the medical record) (1a, 1b, 2a, 2c, 2d, 2e);
    b. analyzing physician query (1a, 1b, 1c, 2c, 2d);
    c. conducting resource utilization reviews (1a, 1b, 2d, 2e);
    d. auditing coded health information (1a, 1b, 2c);
    e. analyzing case mix index (1a, 1b, 2c, 2d).
5. Demonstrate an understanding of health information compliance by
    a. refining departmental policies and procedures (1a, 1b, 1c, 2c, 2d, 2e);
    b. performing quality assessment (1a, 1b, 2c, 2d, 2e);
    c. assessing risk (1b, 2c, 2d, 2e);
    d. ensuring health information compliance (1a, 1b, 2d, 2e).
6. Demonstrate an understanding of leadership in health information management by
    a. providing education regarding health information management (HIM) laws and regulations (1a, 1b, 2b);
    b. recommending improvements to HIM procedures (1a, 1b, 2b, 2e);
    c. collaborating with other departments for HIM interoperability ((1a, 1b, 2b, 2d, 2e);
    d. providing HIM technical expertise (1a, 1b, 2b, 2c, 2d, 2e).

HITT 2260 - Clinical-Health Info/Med Record Tech

General

Course Key
10490

Course Rubric	Course Number	Course Title
HITT	2260	Clinical -Health Information and Medical Records Technology/Technician

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	10

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-10). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Demonstrate professional conduct in the work place by
    a. adhering strictly to hospital policy on attendance (1b, 1c, 2b);
    b. demonstrating punctuality (1b, 1c, 2b);
    c. complying with hospital's dress code (1a, 1b, 1c, 2b);
    d. receiving constructive criticism (1b, 1c, 2b);
    e. developing working relationships (1b, 1c, 2b);
    f. executing work duties with minimum supervision (1b, 1c, 2b).
2. Demonstrate understanding of medical coding outpatient services by
    a. defining clinic, emergency department, observation, and outpatient surgery (1a, 1b, 2c);
    b. citing ambulatory services coding guidelines (1a, 1b, 2c, 2e);
    c. complying with ambulatory services coding guidelines (1a, 1b, 2c, 2e);
    d. assigning codes for ambulatory services (1a, 1b, 2d, 2e);
    e. reporting daily activity (1a, 2c).
3. Demonstrate understanding of medical coding of inpatient services by
    a. defining key terms (1a, 1b, 2c);
    b. citing inpatient services coding guidelines (1a, 1b, 2d);
    c. complying with inpatient services coding guidelines (1a, 1b);
    d. assigning codes for inpatient services (1b, 1c, 2c, 2d, 2e).
4. Demonstrate understanding of reimbursement policies for hospital services by
    a. evaluating coding and reimbursement software application (1b, 1c, 2c, 2d, 2e);
    b. determining appropriate DRG/APC assignment (1b, 1c, 2c, 2d, 2e);
    c. auditing claims for coding errors (1b, 1c, 2c, 2d, 2e);
    d. analyzing returned claims (1b, 1c, 2c, 2d, 2e);
    e. verifying correct coding assignment (1b, 1c, 2c, 2d, 2e).

HITT 2261 - Clinical - Health Info Med Rec Tech/Tec

General

Course Key
12168

Course Rubric	Course Number	Course Title
HITT	2261	Clinical - Health Information and Medical Records Technology/Technician

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	6

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-6). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Participate successfully in clinical experiences related to HIM records processing functions by
    a. explaining clinical site admitting procedures and numbering systems (1a, 1b, 2c, 2e);
    b. utilizing clinical site master patient index and other indices and registries as directed (1a, 1b, 2c, 2e);
    c. demonstrating the ability to locate and file clinical site patient records (1a, 1b, 2c, 2e);
    d. performing record completion and enforcement procedures (1a, 1b, 2c, 2e);
    e. preparing patient records for storage (1a, 1b, 2c, 2e);
    f. describing receptionist duties (1a, 1b, 2c, 2e);
    g. describing release of information procedures (1a, 1b, 2c, 2e);
    h. explaining statistical report procedures (1a, 1b, 2c, 2e);
    i. preparing daily statistical report (1a, 1b, 2c, 2e);
    j. explaining record retention policies (1a, 1b, 2c, 2e).
2. Participate successfully in clinical experiences related to performance improvement and quality assessment by
    a. performing assigned performance improvement and quality assessment activities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. performing assigned specialized management projects (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Improve a work related process by
    a. utilizing performance improvement and quality assessment tools to evaluate the problem (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. utilizing performance improvement and quality assessment tools to develop a solution (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. preparing a presentation to describe the problem, tools utilized, and the solution (1a, 1b, 2c, 2e).
4. Display professional attributes by
    a. demonstrating professional conduct and appearance (1a, 1b, 1c, 2a, 2b, 2c);
    b. demonstrating professional interpersonal relations and communications (1a, 1b, 1c, 2a, 2b, 2c);
    c. displaying self-management skills (1c, 2a);
    d. choosing ethical courses of action (1b, 1c, 2a, 2b, 2c);
    e. preparing daily clinical reports according to guidelines (1a, 1b, 2c, 2e).

HITT 2326 - Project Mngmnt for Health Professionals

General

Course Key
12131

Course Rubric
HITT

Course Number
2326

Course Title
Project Management for Health Professionals

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) General principles of project management tools and techniques that results in the ability to create and follow a project management plan.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze project requirements; define project lifecycle; apply project management and change management principles; create implementation plans to achieve project requirements; use tools and techniques for project planning, monitoring, risk management and control; and discuss team dynamics in relation to project management techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a basic understanding of project management by
    a. defining project management and how it differs from operations (1a, 2a);
    b. describing project management knowledge areas (1a, 1b, 2a, 2c);
    c. describing key roles and skills of project managers (1b, 1c, 2b);
    d. discussing the challenges of project management (1b, 2c, 2d);
    e. outlining the essential project manager tools (2a, 2d, 2e).
2. Describe the processes that establish the foundation of a project by
    a. demonstrating how to define a project (1a, 1b, 2a);
    b. describing the key principles of project planning (1a, 1b, 2c);
    c. describing the essential elements of a project plan (1a, 2a, 2c);
    d. demonstrating how to develop a project schedule (1a, 1b, 2a, 2c);
    e. discussing project budget determination (1b, 2a).
3. Demonstrate processes to effectively monitor, track, correct, and protect a project's performance by
    a. describing management fundamentals for project control (1c, 2b);
    b. demonstrating techniques for project control and performance reporting (1b, 1c, 2b, 2d);
    c. discussing project change types and how to manage project change (1b, 2c, 2d, 2e);
    d. demonstrating how to manage project deliverables and quality (1b, 2a, 2d);
    e. discussing project issues and risk management (1b, 1c, 2a, 2d).
4. Describe the key leadership and people-focused skills to meet project demands by
    a. describing the difference between managing and leading a project (1c, 2b);
    b. discussing the importance of effective project communication and best use of each communication tool (1b, 2b, 2d, 2e);
    c. discussing critical expectation components to manage stakeholder expectations (1b, 1c, 2a, 2b, 2c);
    d. discussing key management principles to improve project team performance (1b, 1c, 2b, 2e);
    e. discussing techniques to manage cross-functional projects and vendors (1b, 1c, 2b, 2d).

HITT 2335 - Coding and Reimbursement Methodologies

General

Course Key
12204

Course Rubric
HITT

Course Number
2335

Course Title
Coding and Reimbursement Methodologies

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Sequence codes according to established guidelines and standards; and apply reimbursement methodologies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of healthcare reimbursement systems in the United States by
    a. identifying the different types of healthcare reimbursement systems (1a, 1b, 2d);
    b. differentiating the different code sets approved by HIPAA (1a, 1b, 2c, 2d);
    c. conforming to federal coding compliance requirements that influence reimbursement (1a, 1b, 2c).
2. Demonstrate understanding of various voluntary healthcare insurance by
    a. defining voluntary healthcare insurance (1a, 1b, 2c);
    b. differentiating major types of voluntary healthcare insurance plans (1a, 1b, 2c);
    c. defining basic language associated with reimbursement by commercial health insurance plans (1a, 1b, 2c, 2d);
    d. explaining common models and policies of payment for commercial healthcare insurance plans (1a, 1b, 2c, 2d, 2e).
3. Describe the characteristics of various prospective payment systems by
    a. differentiating major types of Medicare and Medicaid prospective payment systems (1a, 1b, 2c, 2d);
    b. identifying the basic components of the inpatient prospective payment system (1a, 1b, 2c, 2d, 2e);
    c. identifying the major components of the outpatient prospective payment system (1a, 1b, 2c, 2d, 2e);
    d. explaining common models and policies of payment for outpatient and inpatient Medicare and Medicaid prospective payment systems (1a, 1b, 2c, 2d, 2e).
4. Demonstrate understanding of revenue cycle management by
    a. comprehending the components of the revenue cycle (1a, 1b, 2c);
    b. defining revenue cycle management (1a, 1b, 2c);
    c. describing the importance of effective revenue cycle management (1a, 1b, 2c, 2d).
5. Apply advanced coding techniques by
    a. applying diagnoses and procedure codes using ICD-9-CM and HCPCS coding systems (1a, 1b, 2c, 2d, 2e);
    b. ensuring accuracy of diagnostic and procedural groupings using the DRG and APC systems (1a, 1b, 2c, 2d, 2e);
    c. displaying ability to validate coding accuracy using clinical information found in the health record (1a, 1b, 2c);
    d. working with electronic applications that support clinical classification and coding assignments (1a, 1b, 2c, 2d, 2e).

HITT 2339 - Health Info Organization and Supervision

General

Course Key
12132

Course Rubric
HITT

Course Number
2339

Course Title
Health Information Organization and Supervision

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Principles of organization and supervision of human, financial, and physical resources.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Coordinate the utilization of internal and external resources; apply problem solving, conflict resolution, leadership and decision-making skills, analyze budgets; evaluate contracts; develop team building techniques; and identify local, state, and federal labor regulations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Summarize health information related leadership roles (1a, 1b).
2. Apply the fundamentals of team leadership (1a, 1b, 2b, 2d).
3. Organize and facilitate meetings (2a, 2b).
4. Recognize the impact of change management on processes, people, and systems (2a, 2b, 2c, 2d, 2e).
5. Utilize tools and techniques to monitor, report, and improve processes (2d, 2e).
6. Identify cost-saving and efficient means of achieving work processes and goals (2a, 2d).
7. Report staffing levels and productivity standards for health information functions (2a, 2c).
8. Adhere to work plans, policies, procedures, and resource requisitions in relation to job functions (1a, 1b, 1c).
9. Explain the methodology of training and development (1a, 1b, 2a).
10. Explain the return on investment for employee training and development (1a, 1b, 2a, 2b).
11. Plan budgets (1a, 1b, 1c, 2a).
12. Explain accounting methodologies (1a, 1b, 2a, 2c).
13. Summarize project management methodologies (2c, 2e).

HITT 2343 - Quality Assessment/Perform Improvement

General

Course Key
10554

Course Rubric
HITT

Course Number
2343

Course Title
Quality Assessment/Performance Improvement

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Monitor compliance with governmental and organizational regulations and accreditation standards; use tools to perform quality assessment and improvement; identify potential risk management issues; define utilization and resource management functions; and assist in medical staff quality improvement functions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of health care quality standards by
    a. distinguishing among licensure, certification, and accreditation (1a, 1b, 2c);
    b. identifying common hospital accreditation agencies (1a, 1b, 2c);
    c. applying health information accreditation guidelines to policy writing and chart analysis (1a, 1b, 2b, 2c, 2e).
2. Demonstrate an understanding of performance improvement by
    a. tracing the evolution from quality assurance to performance improvement (1a, 1b, 2c, 2d);
    b. describing performance improvement accreditation standards (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of performance improvement plans by
    a. describing performance improvement, utilization management, and risk management components, concepts, and pioneers (1a, 1b, 2c, 2d);
    b. analyzing processes utilizing accreditation standards and performance improvement tools (1a, 1b, 2b, 2c, 2e);
    c. comparing performance improvement standards for all types of health care facilities (1a, 1b, 2c, 2d);
    d. writing policies and procedures based on these standards (1a, 1b, 2b, 2c, 2d, 2e).
4. Apply medical staff performance improvement and data quality accreditation standards by
    a. describing medical staff structure, governance, credentialing, and peer review accreditation standards (1a, 1b, 2c, 2d);
    b. writing policies and procedures based on these standards (1a, 1b, 2b, 2c, 2d, 2e).
5. Apply specialized Health Information Management performance improvement tools by
    a. describing the purpose of staffing and workflow management tools (1a, 1b, 2c, 2d);
    b. describing the purpose of work simplification, job analysis, and job evaluation tools (1a, 1b, 2c, 2d);
    c. using these tools to improve workflow and performance (1a, 1b, 2b, 2c, 2d, 2e).
6. Display ability to assess the role of the Health Information Management professional in maintaining data integrity by
    a. identifying characteristics of data quality (1a, 1b, 2c);
    b. identifying data integrity standards setting organizations (1a, 1b, 2c);
    c. describing the purpose of Recovery Audit Contractors (RACs) and Regional Health Information Organizations (RHIOs) (1a, 1b, 2c);
    d. analyzing potential effects of substandard data quality on patient outcomes and health care facility economic stability (1a, 1b, 2a, 2c).

HITT 2346 - Advanced Medical Coding

General

Course Key
7540

Course Rubric
HITT

Course Number
2346

Course Title
Advanced Medical Coding

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Advanced concepts of ICD and CPT coding rules, conventions, and guidelines in complex case studies. Investigation of government regulations and changes in health care reporting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze health records to assign principal/secondary diagnoses and procedures; and assign reimbursement methodologies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of conditions affecting pregnancy, childbirth, and the puerperium by
    a. identifying the coding guidelines for coding complications of pregnancy, abortion, childbirth, and puerperium (1a, 1b, 2c);
    b. analyzing the steps for selecting pregnancy, abortion, childbirth, and puerperium codes (1a, 1b, 2c, 2d);
    c. diagramming a decision tree for coding complications of pregnancy, abortion, childbirth, and puerperium (1a, 1b, 2c);
    d. analyzing the fifth digit classification in conditions of pregnancy, childbirth, and puerperium (1b, 1c, 2b);
    e. displaying ability to assign ICD-9 codes for complications of pregnancy, abortion, childbirth, and puerperium (1a, 1b, 2c, 2d, 2e).
2. Demonstrate understanding of the coding classification of congenital anomalies and perinatal conditions by
    a. distinguishing between congenital and acquired conditions (1a, 1b, 2c);
    b. explaining the difference between congenital and perinatal deformities (1a, 1b, 2c);
    c. listing the coding guidelines for congenital and perinatal conditions (1a, 1b, 2c);
    d. displaying ability to assign codes for congenital anomalies and perinatal conditions (1a, 1b, 2c, 2d, 2e).
3. Demonstrate understanding of coding disease processes associated with diseases of the circulatory system by
    a. identifying the coding guidelines for coding diseases of the circulatory system (1a, 1b, 2c);
    b. classifying complex disorders related to the circulatory system (1a, 1b, 2c, 2d, 2e);
    c. using the ICD-9-CM hypertension table (1a, 1b, 2c, 2d, 2e);
    d. distinguishing between the different conditions regarded as ischemic heart disease (1a, 1b, 2c);
    e. classifying procedures involving the circulatory system (1a, 1b, 2c, 2d, 2e);
    f. displaying ability to sequence circulatory system codes according to UHDDS guidelines (1a, 1b, 2c, 2d, 2e).
4. Demonstrate understanding of coding conditions and procedures associated with neoplasm by
    a. outlining the coding guidelines for specific conditions and procedures associated with neoplasm (1a, 1b, 2c);
    b. explaining the various classifications of neoplasm (1a, 1b, 2c);
    c. displaying ability to assign ICD-9-CM codes for neoplasm conditions and procedures (1a, 1b, 2c, 2e);
    d. displaying ability to sequence ICD-9-CM neoplasm codes according to UHDDS guidelines (1a, 1b, 2c, 2d).
5. Demonstrate understanding of coding of complex infectious disease processes by
    a. explaining the pathological progression of certain complex infectious diseases (1a, 1b, 2c);
    b. selecting ICD-9-CM codes for complex infectious diseases (1a, 1b, 2c, 2d, 2e);
    c. defending ICD-9-CM code selections for complex infectious diseases (1a, 1b, 2c, 2d);
    d. displaying ability to sequence ICD-9-CM infectious disease codes according to UHDDS guidelines (1a, 1b, 2c, 2d, 2e).

HMSY 1371 - Computer Crime

General

Course Key
15899

Course Rubric
HMSY

Course Number
1371

Course Title
Computer Crime

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of the role of law enforcement investigations in cyber terrorism as well as criminal use of computers and the Internet. Also includes tools used to monitor the Internet and forensic analysis of computers seized in investigations. Covers securing a search warrant, protecting computer evidence, and obtaining information from offenders.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

HPRS 1202 - Wellness and Health Promotion

General

Course Key
12890

Course Rubric
HPRS

Course Number
1202

Course Title
Wellness and Health Promotion

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) An overview of wellness theory and its application throughout the life span. Focus is on attitude development, impact of cultural beliefs, and communication of wellness.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain personal, social, cultural, nutritional, and environmental components of wellness and prevention; correlate concepts of wellness and healthy lifestyle; and develop health promotion strategies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Discuss and analyze the theory and philosophy of health attitude development (1a, 1b, 1c, 2b, 2c, 2e).
2. Outline the components of holistic health for healthy individuals across the lifespan (1a, 1b, 1c, 2b, 2c, 2e).
3. Develop a personal wellness program including nutrition, exercise, and stress reduction (1a, 1b, 1c, 2b, 2c, 2e).
4. Discuss and analyze the impact of health issues on the individual's environment and community (1a, 1b, 1c, 2b, 2c, 2e).
5. Evaluate the role of gender, ethnicity, gender identity, age, and sex in health disparities (1a, 1b, 1c, 2b, 2c, 2e).
6. Research, analyze, and present a current health issue project (1a, 1b, 1c, 2b, 2c, 2e).
7. Analyze the role of the health provider in addressing health lifestyle issues both personally and in others (1a, 1b, 1c, 2b, 2c, 2e).

HPRS 1206 - Essentials of Medical Terminology

General

Course Key
8413

Course Rubric
HPRS

Course Number
1206

Course Title
Essentials of Medical Terminology

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). A study of medical terminology, word origin, structure, and application.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define, pronounce, and spell medical terms with the use of medical references as resource tools; utilize terms in context; analyze medical terms; examine word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding and appropriate usage of medical terms related to the various systems of the human body by
    a. defining assigned terms (1a, 1b, 2c);
    b. defining word parts (1a, 1b, 2c);
    c. defining abbreviations (1a, 1b, 2c);
    d. writing medical terms with correct spelling (1a, 1b, 2c).
2. Demonstrate the ability to analyze medical terms related to the various systems of the human body by
    a. determining word parts (1a, 1b, 2c);
    b. writing word parts (1a, 1b, 2c);
    c. dividing word parts (1a, 1b, 2c);
    d. labeling word parts (1a, 1b, 2c).

HPRS 1304 - Basic Health Professional Skills

General

Course Key
12889

Course Rubric
HPRS

Course Number
1304

Course Title
Basic Health Profession Skills

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A study of the concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring, and health documentation methods.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Comply with national, state, and local regulatory agencies; respond to basic medical emergencies; perform client monitoring skills; and document health care.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comply with national, state, and local regulatory agencies by displaying knowledge of and following the guidelines of the accrediting bodies (1a, 1b, 1c, 2b, 2c, 2e).
2. Respond to basic medical emergencies by demonstrating competence in ACLS, BLS, and other patient care needed in medical emergencies (1a, 1b, 1c, 2b, 2c, 2e).
3. Perform client monitoring skills such as BP, EKG, temperature, and oxygen saturation (1a, 1b, 1c, 2b, 2e).
4. Document health care by complying with documentation standards set by each medical institution (1a, 1b, 1c, 2b, 2e).

HPRS 1370 - Central Sterile Processing II

General

Course Key
12902

Course Rubric
HPRS

Course Number
1370

Course Title
Central Sterile Processing II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Technical Local Need

Description
(3-2-2) The course explores two subsections of the Central Sterile Processing Certification program: A) Inventory Control-prepares the student with organizational skills needed to control, track and distribute inventory through the use of different techniques in inventory control and distribution, as well as the use of bar codes and radio frequency identification to track inventories. B) Sterile Storage and Distribution-introduces the basic procedures of packaging processes through a comparison of reusable and disposable packaging materials, basic package closure methods, and factors, which affect shelf-life and stock rotation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Develop organizational skills needed to control, track, and distribute inventory through the use of different techniques in inventory control and distribution, as well as the use of bar codes and radio frequency identification to track inventories (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate knowledge of introductory sterile storage and distribution by comprehending the basic procedures of packaging processes through a comparison of reusable and disposable packaging materials, basic package closure methods, and factors which affect shelf life and stock rotation (1a, 1b, 2a, 2c, 2d, 2e).

HPRS 1470 - Central Sterile Processing I

General

Course Key
12904

Course Rubric
HPRS

Course Number
1470

Course Title
Central Sterile Processing I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Technical Local Need

Description
(4-3-2) This course will teach subsections of the Central Sterile Processing Certification program related to: A) Introduction to Central Service-an introduction to the central service role, surgical supplies, basic and specialty surgical instruments, and packaging and sterilization. B) Infection Control and Occupational Safety-related to the principles and practice of infection control and OSHA guidelines along with common safety and hazards protocols. C) Regulations and Standards-teaches the difference between the regulations and voluntary and regulatory standards, the role and responsibilities of federal agencies that impact Central Services, and the important aspects of the regulations and standards they administer.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of central service and its parts: the central service role, surgical supplies, basic and specialty surgical instruments, and packaging and sterilization (1a, 1b, 1c, 2a, 2c).
2. Demonstrate knowledge of infection control and occupational safety related to the principles and practice of infection control and OSHA guidelines, along with common safety and hazards protocols (1a, 1b, 1c, 2a, 2c).
3. Demonstrate knowledge of regulations and standards and its parts: the difference between the regulations and voluntary and regulatory standards, the role and responsibilities of federal agencies that impact central services, and the important aspects of the regulations and standards they administer (1a, 1b, 1c, 2a, 2c).

HPRS 1471 - Central Sterile Processing III

General

Course Key
12905

Course Rubric
HPRS

Course Number
1471

Course Title
Central Sterile Processing III

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Technical Local Need

Description
(4-3-2) An exploration of the subsections of the Central Sterile Processing Certification program: A) Instrument and Instrument Identification-identifying surgical instruments by name and purpose, examination of the process by which surgical instruments are manufactured and prepared for the sterilization process. B) Endoscopic Instruments-proper care, handling and processing of endoscopic instruments. C) Decontamination-describe how reusable equipment, instruments, and supplies are cleaned and decontaminated by means of manual or mechanical cleaning processes and chemical disinfection and the proper use of Personal Protective Equipment (PPE) and Standard Precautions. D) Preparation and Handling-relates to basic principles of various packaging materials and closure methods used for sterilization preparation as they relate to the Association of Advancement of Medical Instrument (AAMI) standards. E) Sterilization- relates sterilization procedures and theory including high and low temperature sterilization, sterilization equipment, types of sterilizers, various cycles, quality assurance concepts, documentation, standards, policies and procedures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of instruments and instrument identification by
    a. identifying surgical instruments by name and purpose (1a, 1b, 2a, 2c, 2d, 2e);
    b. examining the process by which surgical instruments are manufactured and prepared for the sterilization process (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate knowledge of endoscopic instrument and the proper care, handling, and processing of endoscopic instruments (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate knowledge of decontamination by
    a. describing how reusable equipment, instruments, and supplies are cleaned and decontaminated by means of manual or mechanical cleaning processes and chemical disinfection (1a, 1b, 2a, 2d, 2e);
    b. describing the proper use of Personal Protective Equipment (PPE) and standard precautions (1a, 1b, 2a, 2d, 2e).
4. Demonstrate knowledge of preparation and handling relating to basic principles of various packaging materials and closure methods used for sterilization preparation as they relate to the Association of Advancement of Medical Instrument (AAMI) standards (1a, 1b, 2a, 2b, 2e).
5. Demonstrate knowledge of sterilization procedures and theory including high and low temperature sterilization, sterilization equipment, types of sterilizers, various cycles, quality assurance concepts, documentation, standards, policies, and procedures (1a, 1b, 2a, 2b, 2e).

HPRS 1561 - Clinical-Health Services/Allied Health

General

Course Key
12764

Course Rubric
HPRS

Course Number
1561

Course Title
Clinical-Health Services/Allied Health/Health Sciences

Semester Credit Hours
5

Lecture Hours
0

Lab Hours
15

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-0-15) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Recognize and practice within limitations of professional practice (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Practice the professional standards, guidelines, requirements, standard of practice, and ethics that guide sterile processing practices (1a, 1b, 1c, 2a, 2c, 2d, 2e).
3. Identify surgical instruments by name and purpose (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge of the process by which surgical instruments are manufactured and prepared for the sterilization process (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Care for and assemble instruments in the correct order (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Practice the use of different types of sterilizers and various cycles at clinical sites (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Follow policy and procedures for cleaning, decontaminating, and sterilizing instrument and equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

HPRS 2172 - Health Care Communications

General

Course Key
12134

Course Rubric
HPRS

Course Number
2172

Course Title
Health Care Communications

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Technical Local Need

Description
(1-1-0) Methods of communication with clients, client support groups, health care professionals, and external agencies. Recommended Prerequisite: Computer Literacy

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): Computer Literacy

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply oral, written and technological methods of communication with clients, client support groups, healthcare professionals, and external agencies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Develop knowledge of the potential impact of effective versus ineffective communication used in a health care environment with patients, clients, consumers, families, the health care team, and the greater community (2a, 2b, 2c, 2d, 2e, 2f, 3a, 3b, 3c, 3d, 4a, 4b).
2. Demonstrate basic verbal and nonverbal therapeutic communication skills and professional behavior important in the health care setting (2e, 2f, 3a, 3b, 3c).
3. Develop sensitivity to basic issues of diversity in health care communication (2e, 2f).
4. Utilize effective communication skills and techniques to enhance patient care and the therapeutic relationship (2c, 2e, 2f, 3a, 3b, 3c).

HPRS 2200 - Pharmacology for Health Professions

General

Course Key
726

Course Rubric	Course Number	Course Title
HPRS	2200	Pharmacology for Health Professions

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Categorize the classification of drugs; calculate drug dosages; and identify the therapeutic use, routes of administration, indications, contraindications, and adverse effects

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of U.S. drug regulations by
    a. describing the drug approval process (1a, 1b, 2c);
    b. describing drug control legislation impacting the sale and use of pharmaceuticals and narcotics (1a, 1b, 2c);
    c. identifying the purpose of drug safety categories and schedules (1a, 1b, 2c).
2. Demonstrate an understanding of principles of drug administration by
    a. comparing drug administration routes (1a, 1b, 2c);
    b. explaining dosage guidelines (1a, 1b, 2c);
    c. differentiating between pharmacokinetics and pharmacodynamics (1a, 1b, 2c).
3. Demonstrate an understanding of adverse outcomes of pharmaceutical use by
    a. distinguishing between physical and psychological dependence (1a, 1b, 2c);
    b. distinguishing between substance abuse and addiction (1a, 1b, 2c);
    c. distinguishing between tolerance and dependence (1a, 1b, 2c);
    d. identifying side effects and adverse effects for assigned drugs (1a, 1b, 2c).
4. Demonstrate an understanding of assigned drugs by
    a. identifying assigned drugs' generic names (1a, 1b, 2c);
    b. identifying assigned drugs' classifications (1a, 1b, 2c);
    c. describing assigned drugs' indications (1a, 1b, 2c);
    d. describing assigned drugs' mechanisms of action (1a, 1b, 2c).

HPRS 2201 - Pathophysiology

General

Course Key
739

Course Rubric	Course Number	Course Title
HPRS	2201	Pathophysiology

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Distinguish environmental factors, physical, psychosocial, and cognitive characteristics of various diseases and conditions; and identify implications of therapeutic interventions for diseases and conditions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the pathophysiology of human diseases by
    a. describing the disease (1a, 1b, 2c);
    b. explaining the etiology (1a, 1b, 2c);
    c. explaining the signs and symptoms (1a, 1b, 2c);
    d. determining the diagnosis (1a, 1b, 2c);
    e. explaining the treatment (1a, 1b, 2c);
    f. identifying the prognosis (1a, 1b, 2c).
2. Demonstrate the ability to understand and apply medical terms related to pathophysiology of human diseases by
    a. defining assigned terms (1a, 1b, 2c);
    b. writing medical terms (1a, 1b, 2c);
    c. defining abbreviations (1a, 1b, 2c).

HPRS 2321 - Medical Law & Ethics for Health Pro

General

Course Key
15625

Course Rubric	Course Number	Course Title
HPRS	2321	Medical Law and Ethics for Health Professionals
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Principles, procedures, and regulations governing the legal and ethical relationships between physicians, patients, and health care professionals. Includes current ethical issues related to the various healthcare professions and patient confidentiality. This course offers insights into the ethical responsibilities of healthcare leaders and effective decision-making principles, while providing the necessary tools to establish a systematic approach to ethics. Three categories will be emphasized: Economics, Law, and Administration.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of Course Outcomes: Define general legal terms as they apply to the practice of medicine; discuss the importance of the Patient's Bill of Rights; identify local, state and federal standards and relations for the control and use of health information; demonstrate appropriate health information disclosure practices; and differentiate among traditional and contemporary views and principles of bioethics.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand how ethics apply to clients, patients, vendors, providers, clinicians, and stakeholders in the healthcare environment by
    a. discussing ethical theories, concepts, and principles (2a, 2b, 2c, 2d, 2e, 2f, 4a, 4b);
    b. describing ethical standards of conduct when making decisions (2d, 3a, 3b, 3c, 4b, 4c);
    c. understanding and applying ethical principles and boundaries (1d, 2d, 2e, 3a, 4c);
    d. understanding why leaders become unethical, and the self-awareness needed to avoid unethical practices (1d, 2d, 3a, 3c, 3d, 4a, 4c);
    e. analyzing the role of ethics in healthcare management, particularly with end of life care, privacy, and resource allocation (1c, 1d, 2c, 2d, 2e, 3a, 3b, 3c, 4a, 4c, 5b).

HPRS 2331 - General Health Professions Management

General

Course Key
15626

Course Rubric	Course Number	Course Title
HPRS	2331	General Health Professions Management
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Exploration and application of management concepts necessary for effective health profession operations. Developing and capturing new healthcare markets and enhancing organizational effectiveness occur through increased improvement and continuous innovation. New discoveries, technologies, competition, and globalization promote healthcare leaders to foster pragmatic innovation. This course explores successful frameworks, models, funding techniques, risks, and barriers for introducing breakthrough products and services. Topics include design-driven innovation, knowledge management, and data collection and analysis for effective decision making.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze current health care trends; apply health care management concepts; distinguish supervisor and supervisory roles; demonstrate management of financial and personnel operations; evaluate regulatory/legal processes in health care management.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply healthcare models to lead and manage in a competitive market-based environment by
    a. discussing the history of the health care industry (1a, 1b, 1c, 3a, 3b, 4a, 5a, 5b);
    b. describing the current issues affecting the healthcare industry (1a, 1c, 2d, 3a, 3c, 5b);
    c. understanding the relationship between hospitals, medical practices, public and private insurance, and public health to the healthcare industry (2c, 2f, 3a, 3b, 3c, 3d, 4a);
    d. selecting the appropriate means to collect and analyze data to convey information (1a, 1c, 2d, 3d, 4a, 4b, 4c, 5a, 5b);
    e. evaluating and selecting appropriate methods to present briefings to decision makers and healthcare stakeholders (3b, 3c, 4a, 4b, 4c, 5a, 5b).

HRPO 1302 - Human Resources Training and Development

General

Course Key
13744

Course Rubric	Course Number	Course Title
HRPO	1302	Human Resources Training and Development
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An overview of human resources training and development as related to organizational mission and goals.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: List organizational advantages of human resources development policies; describe how training and development strategies are linked to organizational goals; identify methods of measuring training needs; identify components of training design and delivery; and describe methods of evaluating a training program.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of organizational human resources development by
    a. explaining the need for policy as it relates to human capital development in the workplace (1a, 1b, 2c);
    b. identifying organizational needs and issues surrounding workforce sustainability (1a, 1b, 2c);
    c. discussing the trend toward performance management, and how this impacts today's training professional (1a, 1b, 2c, 2d).
2. Demonstrate an understanding of training and development and the correlation between organizational goals by
    a. describing how training and development links to overall development of human capital in the workplace (1a, 1b, 2c, 2d);
    b. identifying the principles which impact how adults learn and applying these principles in organizational settings (1a, 1b, 2c);
    c. identifying common models and theories related to training and curriculum design (1a, 1b, 2c).
3. Explain methods of identifying training needs by
    a. describing methods of training and learning needs analysis (1a, 1b, 2c);
    b. discussing the importance of proper analysis of learning needs (1a, 1b, 2c);
    c. explaining the training needs analysis process (1a, 1b, 2c).
4. Demonstrate an understanding of the methods used to design and deliver training by
    a. applying methods of instructional design to the design of training programs (1a, 1b, 2c);
    b. developing an appropriate training strategy for modern organizations, using a variety of learning technologies (1a, 1b, 2a, 2c, 2e);
    c. analyzing methods for delivering a training program (1a, 1b, 2c).
5. Demonstrate an understanding of training evaluation by
    a. identifying strategies and models used for training evaluation (1a, 1b, 2c);
    b. identifying technology used for effective training follow up (1a, 1b, 2c);
    c. developing an effective evaluation for a training program (1a, 1b, 2c, 2d).

HRPO 1306 - Basic Mediator Training

General

Course Key
13745

Course Rubric	Course Number	Course Title
HRPO	1306	Basic Mediator Training

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Topics include history of mediation, Alternative Dispute Resolution legislation in Texas, conflict resolution theory, mediation theory and practice, mediation process and techniques, self-awareness and ethics. When scheduled for 40 or more hours, can be used to meet the standards for basic mediation training in Texas as established by the Texas Mediation Trainer Roundtable.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the history of mediation and the key aspects of legislation affecting mediation; define types of conflict, responses to conflict, and the dispute resolution continuum; identify the mediation models and the benefits of the mediation process; identify the elements of the mediation process; apply mediation techniques; and evaluate the influence of personal characteristics and biases in the mediation process; explain the ethical considerations in mediation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of mediation and related legislation by
    a. listing specific legislation that affects the mediation process (1a);
    b. identifying basic principles of the mediation process (1a, 2c).
2. Demonstrate an understanding of conflict and conflict resolution by
    a. discussing the nature of conflict, personally and within organizations (1a, 1b, 2c);
    b. identifying types of conflict that can occur in organizational settings (1a, 1b);
    c. explaining the causes and effects of conflict within organizations (1a, 1b);
    d. explaining the elements of the dispute resolution continuum (1a, 1b, 2c);
    e. identifying effective responses to negotiation and conflict resolution (1a, 1b, 2c).
3. Demonstrate an understanding of the mediation process by
    a. identifying the mediation models and the benefits of the mediation process (1a, 1b);
    b. explaining the roles and functions of the mediator (1a, 1b, 2c);
    c. summarizing the process of preparing for effective mediation (1a, 1b, 2c);
    d. identifying the elements of the mediation process within organizations (1a, 1b);
    e. describing the methods and styles of negotiation (1a, 1b, 2c);
    f. developing a plan for conflict resolution and mediation (1a, 1b, 2b, 2c, 2d).
4. Demonstrate an understanding of ways personal characteristics and personal ethics can relate to the mediation process by
    a. identifying common mistakes in the mediation and conflict resolution process (1a, 1b);
    b. discussing the role of culture in the mediation and negotiation process (1a, 1b, 2c);
    c. identifying biases and personal attributes that can influence the mediation process (1a, 1b);
    d. explaining the ethical considerations in mediation (1a, 1b, 1c, 2c).

HRPO 1311 - Human Relations

General

Course Key
8987

Course Rubric	Course Number	Course Title
HRPO	1311	Human Relations

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Evaluate human relations including diversity, attitudes, self-esteem, and interpersonal skills to promote career success; identify the causes and effects of stress in the workplace; identify individual and group communication and decision-making skills; and analyze how theories of motivation and human behavior impact strategies of change management.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of human behavior and its influence on the work environment by
    a. describing the purpose and importance of understanding human behavior (1a, 1b);
    b. developing an understanding of self-esteem and its relationship between attitudes and values (1a, 1b);
    c. discussing ways to improve interpersonal skills (2a, 2b, 2c, 2e, 2f);
    d. describing how diversity impacts human behavior (2d, 2e, 3c, 3e).
2. Identify the causes and effects of stress by
    a. explaining how the effects and resistance to change create stress (1a, 1b, 3b, 3d);
    b. explaining how change can be managed to minimize the impact of stress on the individual (1a, 1b, 3b, 3c, 3d).
3. Demonstrate an understanding of the communication and decision-making process by
    a. explaining and analyzing the communication process (1b, 2c);
    b. identifying one's own personal communication style (1a, 1d, 1e);
    c. discussing similarities and differences in leadership and management (1b);
    d. explaining how a team utilizes leadership in decision making (2a, 2b, 2c, 2d, 2f);
    e. demonstrating the ability to communicate one-on-one and in groups (1a, 1b).
4. Demonstrate an understanding of motivation strategies that impact human behavior by
    a. analyzing and comparing the motivation cycle and theories (1a, 1b);
    b. identifying and analyzing internal and external motivators (1a, 1b);
    c. identifying motivational strategies for change management (1a, 1b).

HRPO 2301 - Human Resources Management

General

Course Key
775

Course Rubric
HRPO

Course Number
2301

Course Title
Human Resources Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Behavioral and legal approaches to the management of human resources in organizations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the development of human resources management; explain current methods of job analysis, recruitment, selection, training/development, performance management, promotion, and separation; describe management's ethical, social, and legal responsibilities; explain methods of compensation and benefits planning; and describe the role of strategic human resources planning.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the importance of managing the human resources function by
    a. defining and applying human resources terminology (1a, 1b);
    b. identifying the human resource functions (1a, 1b);
    c. describing and explaining the alignment of the strategic human resource components (1a, 1b).
2. Explain business ethics and corporate social responsibility and how they influence the human resources function by
    a. defining and analyzing the importance of ethics (1a, 1b);
    b. identifying the role of ethics in corporate social responsibility (1a, 1b);
    c. identifying the various components of a diverse workforce (1a, 1b);
    d. explaining the major laws affecting equal employment opportunities (1a, 1b, 2c).
3. Demonstrate an understanding of job analysis, recruitment, and selection by
    a. explaining the value of job analysis as a basic human resources tool (1a, 1b);
    b. identifying the components of the recruitment process (1a, 1b);
    c. identifying the components of the selection process (1a, 1b);
    d. explaining downsizing, succession planning, and disaster planning in today's environment (1a, 1b, 2c).
4. Demonstrate an understanding of the importance of training and development by
    a. identifying the components of the training and development process (1a, 1b, 2c);
    b. describing management development, mentoring, and coaching (1a, 1b);
    c. demonstrating the ability to communicate one-on-one and in groups (1a, 1b, 2c).
5. Demonstrate an understanding of performance management, compensation, and benefits by
    a. identifying and analyzing the components of performance management (1a, 1b);
    b. identifying and analyzing the components of compensation and benefits (1a, 1b);
    c. describing the nature and role of a safe and healthy work environment (1a, 1b).

HRPO 2303 - Employment Practices

General

Course Key
13746

Course Rubric
HRPO

Course Number
2303

Course Title
Employment Practices

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of employment issues including techniques for human resources forecasting, selection, and placement including interview techniques, pre-employment testing and other predictors. Topics include recruitment methods, the selection process, Equal Employment Opportunity (EEO), EEO recordkeeping, and Affirmative Action Plans.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify key legislation affecting the employment functions of human resource management; establish a recruitment plan; define job requisitions by matching skills to needed competencies; develop an employment policy related to recruitment and selection; and develop selection tools.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the field of Employee and Labor Relations, including relevant theories, laws, programs, and policies by
    a. identifying legislation affecting employment functions within human resources roles (1a, 1b);
    b. identifying how employment law is regulated in the United States through the following: Title VII of the 1964 Civil Rights Act; Affirmative Action; Race and Color, National Origin, Sexual, Age, and Disability Discrimination; Employee Rights and Benefit laws; and Labor laws (1a, 1b, 2c).
2. Demonstrate an understanding of the legal aspects of recruitment and selection by
    a. explaining the selection and placement aspects of the Equal Employment Opportunity Act (1a, 1b, 2c);
    b. identifying the anti-discrimination requirements for implementing the EEO and affirmative action plans (1a, 1b).
3. Demonstrate the ability to design effective recruitment strategies by
    a. defining job requisitions by matching skills to needed competencies (1a, 1b, 2c);
    b. developing an employment policy related to recruitment and selection (1a, 1b, 2b, 2c, 2d);
    c. identifying strategies to develop a diverse talent pool (1a, 1b).
4. Demonstrate an understanding of effective employee selection tools by
    a. identifying common and effective selection tools used in the recruiting and selection process (application forms, pre-employment testing, drug screening, medical examinations, etc.) (1a, 1b);
    b. describing proper interviewing techniques (1a, 1b, 2c);
    c. describing post-interview screening (1a, 1b, 3c);
    d. developing decision-making strategies to select candidates (1a, 1b, 2c, 2d).
5. Explain the importance of promoting a safe and healthy work environment by
    a. identifying the rights, responsibilities, and standards under the Occupational Safety and Health Administration (OSHA) (1a, 1b);
    b. identifying common workplace safety hazards (1a, 1b);
    c. developing strategies to foster and maintain physical and emotional health amongst employees (1a, 1b, 2c, 2b, 2d).

HRPO 2304 - Employee Relations

General

Course Key
13747

Course Rubric
HRPO

Course Number
2304

Course Title
Employee Relations

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An examination of policies, practices, and issues required to build strong employee relations. Topics include communications, employee conduct rules, performance appraisal methods, Title VII, Family Medical Leave Act, Fair Labor Standards Act, and Americans with Disabilities Act updates.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify key legislation affecting the employee relations function of human resource management; and define the role of employee relations as it relates to organizational effectiveness.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the employee relations function of human resource management, including relevant theories, laws, and policies by
    a. identifying legislation affecting employment functions within human resources roles relating to Title VII, Family Medical Leave Act, Fair Labor Standards Act, and Americans with Disabilities Act (1a, 1b, 2c).
2. Explain the process by which unions organize workers under the National Labor Relations Act by
    a. identifying the economic, legal, and working conditions that led to labor laws encouraging union representation and negotiations within workplaces (1a, 1b);
    b. identifying collective bargaining laws and their amendments (1a, 1b);
    c. explaining the functions and issues surrounding trade unionism (1a, 1b, 2c);
    d. explaining how organizations ethically work to counter these organization drives (1a, 1b, 2c);
    e. describing strategies in labor/management contract negotiation (1a, 1b, 2c);
    f. developing strategies to assist companies in developing a workforce to prevent conflict and unionization (1a, 1b, 2a, 2b, 2c).
3. Explain the role of employee relations as it relates to organizational effectiveness by
    a. identifying effective external and internal workplace communication strategies (1a, 1b);
    b. identifying common barriers to workplace communication (1a, 1b);
    c. developing strategies to overcome common barriers to workplace communication (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of employee conduct by
    a. explaining the process by which employees are legally and ethically disciplined and terminated (1a, 1b, 2c);
    b. developing employee conduct guidelines and policies (1a, 1b, 2a, 2c, 2d);
    c. identifying and analyzing methods used to deal with unusual employment incidents and conflict (1a, 1b, 2c);
    d. explaining reasons for and methods of conducting workplace investigations (1a, 1b, 2c).
5. Explain how performance management increases organizational effectiveness by
    a. identifying strategies in creating an effective performance management system (1a, 1b);
    b. developing a performance management tool for an organization (1a, 1b, 2a, 2c, 2d).

HRPO 2305 - Human Resources Information Systems

General

Course Key
13748

Course Rubric
HRPO

Course Number
2305

Course Title
Human Resources Information Systems

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An introduction to Human Resources Information Systems (HRIS). Recommended Pre-requisite: BCIS-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prequisite

10
A Requirement block where all subrequirements are required

#Take BCIS-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): BCIS 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe how human resources business functions link to human resources information systems; identify issues and benefits involved in creating, implementing, and maintaining human resources systems; describe key models such as staffing, employee development, position management, total compensation, outsourcing options, and professional development; and develop the plan to integrate human resources information with an HRIS.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain how human resources business functions connect with human resources information systems by
    a. explaining how by computerizing the human resources function managers can utilize HRIS in order to make important decisions (1a, 1b, 2c, 2d);
    b. examining how HRIS can be instrumental in making decisions on forecasting, compensation planning, management and career development, affirmative action programs, productivity measurement, and turnover analysis (1a, 1b, 2c, 2d);
    c. explaining the strategic value of HRIS and how it contributes to organizational success (1a, 1b, 2c, 2d);
    d. analyzing the basic concepts and principles of training in HRIS (1a, 1b, 2c, 2d).
2. Demonstrate an understanding of challenges and benefits in creating, implementing, and maintaining HRIS by
    a. identifying basic systems and the criteria for success in using HRIS software in organizations (1a, 1b, 2c);
    b. explaining how an HRIS enhances productivity (1a, 1b, 2c);
    c. explaining potential challenges to implementing HRIS (1a, 1b, 2c);
3. Demonstrate an understanding of key models of HRIS related to human resources functions by
    a. identifying the leading HRIS software available in the industry (1a, 1b, 2c);
    b. identifying how information is entered as it relates to employees into a database to include key human resources roles and functions (1a, 1b, 2c);
    c. explaining the frameworks for the development and evolution of corporate universities and learning management systems in various organizations (1a, 1b, 2c, 2d);
    d. analyzing the role and function of e-learning and technology in the development of staff and talent (1a, 1b, 2a, 2c, 2e).
4. Demonstrate an understanding of the process by which human resources information is integrated into an HRIS by
    a. defining characteristics of current human resource information technology implementation strategies (1a, 1b, 2c, 2d, 2e);
    b. determining an integration plan for existing data into an HRIS (1a, 1b, 2c, 2d, 2e).

HRPO 2306 - Benefits and Compensation

General

Course Key
13749

Course Rubric
HRPO

Course Number
2306

Course Title
Benefits and Compensation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An overview of employee compensation systems. Topics include compensation systems, direct and indirect compensation, internal and external determination of compensation, benefits administration, managing and evaluating for effectiveness, legal and regulatory issues, pay equity, job analysis affecting job compensation and competencies.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define a total compensation system; identify objectives of an organization's compensation system; discuss factors that affect compensation programs; discuss how a compensation system is linked to employee performance; identify the steps to establish a total compensation system; and identify key legislation affecting the benefits function of human resource management.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of compensation systems by
    a. identifying the components of a compensation system (1a, 1b);
    b. discussing the differences between a compensation system and a non-compensation system (1a, 1b, 2c, 2d).
2. Explain an organization's compensation system objectives by
    a. identifying the various kinds of short-term incentives used by organizations (1a, 1b);
    b. discussing the various purposes for which organizations design short-term incentives (1a, 1b, 2c);
    c. summarizing the relationship between long-term incentive programs and the future lifestyles of employees (1a, 1b, 2c, 2d);
    d. identifying the various features of a long-term compensation (retirement) program (1a, 1b, 2d);
    e. identifying various components of executive compensation (1a, 1b, 2d).
3. Explain factors influencing compensation programs by
    a. discussing the design of pay grades and their relationship to internal worth and market value (1a, 1b, 2c, 2d);
    b. discussing the relationship between pay structure change and market conditions (1a, 1b, 2c);
    c. discussing challenges facing organizations in providing compensation to employees in foreign work sites (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of the connection between compensation systems to employee performance by
    a. discussing the importance of relating kinds and levels of employer-provided rewards to kinds and levels of employee contribution (1a, 2b, 2c);
    b. identifying the problems related to measuring and rating employee performance (1a, 1b, 2c);
    c. defining merit pay and discussing the critical need to relate pay to performance (1a, 1b, 2c, 2d);
    d. discussing the problems related to measuring and rating employee performance (1a, 1b, 2c);
    e. discussing the design of performance appraisal instruments (1a, 1b, 2c).
5. Demonstrate an understanding of the establishment of total compensation systems by
    a. identifying and discussing the steps in planning a job analysis program (1a, 1b, 2c);
    b. discussing the purpose and organizational use of a job description (1a, 1b, 2c);
    c. identifying strategies for the development and updating of job descriptions within acceptable cost limits (1a, 1b, 2a, 2c);
    d. discussing the reasons for implementing a job evaluation program (1a, 1b, 2c);
    e. discussing the importance of conducting pay surveys (1a, 1b, 2c);
    f. identifying the various kinds of survey methods (1a, 1b, 2c);
    g. identifying the design characteristics of a pay structure (1a, 1b, 2c, 2d).
6. Explain the legislation affecting the benefits function of human resources management by
    a. discussing the influence of wage and hour legislation on employment practices (1a, 1b, 2c, 2d);
    b. identifying pension reform legislation and the impact of ERISA on the pension plans of many organizations (1a, 2b, 2c);
    c. identifying the effects of legislation on health care benefits (1a, 1b, 2c);
    d. discussing the impact of tax retirement legislation on employee spendable income and employer profits (1a, 1b, 2c);
    e. listing antidiscrimination legislation and how it affects employment practices (1a, 1b, 2c).

HRPO 2307 - Organizational Behavior

General

Course Key
12767

Course Rubric
HRPO

Course Number
2307

Course Title
Organizational Behavior

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain organizational theory as it relates to management practices, employee relations, and structure of the organization to fit its environment and operation; analyze leadership styles and determine their effectiveness in employee situations; identify methods in resolving organizational problems; describe the impact of corporate culture on employee behavior; and analyze team dynamics, team building strategies, and cultural diversity.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of organizational behavior in today's business environment by
    a. describing the purpose and importance of organizational behavior concepts and their interrelationship (1a, 1b);
    b. identifying essential skills of management and their functions (1b);
    c. demonstrating an understanding of the organizational structure, culture, and design (1b, 2a, 2c);
    d. identifying and resolving ethical dilemmas that affect people in organization (1b).
2. Demonstrate an understanding of attracting, retaining, and promoting a diverse workforce by
    a. discussing the value of diversity within an organization and business environments (1b);
    b. recognizing and explaining the range of individual differences possessed by workers (1a, 2a);
    c. demonstrating understanding of what motivates workers (1b, 2a, 2b, 2c, 2e);
    d. explaining the multiple factors that affect worker performance (1a, 1b, 2a, 2f);
    e. explaining leadership skills, styles, and qualities (1a, 1b, 2a, 2b, 2e);
    f. identifying motivational strategies for change management (1a, 1b, 2a, 2b).
3. Demonstrate an understanding of using teams in organizations by
    a. understanding how to work collaboratively with others on interdependent tasks (1b, 1b, 2a, 2b, 2c, 2d);
    b. explaining how a team utilizes leadership in decision making and problem solving (2a, 2b, 2c, 2d);
    c. analyzing how leaders use motivational theories to improve performance (1b);
    d. identifying and analyzing the components of performance management (1a, 1b).
4. Demonstrate the ability to complete an organizational behavior project by
    a. presenting proposed project idea (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. presenting completed project to class (1a, 1b, 2a, 2b, 2c, 2d, 2e).

HUMA 1301 - Introduction to Humanities I

General

Course Key
16065

Course Rubric
HUMA

Course Number
1301

Course Title
Introduction to Humanities I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

HUMA 1301 - Introduction to Humanities I Honors

General

Course Key
16064

Course Rubric	Course Number	Course Title
HUMA	1301	Introduction to Humanities I Honors

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

HUMA 1315 - Fine Arts Appreciation Honors

General

Course Key
16066

Course Rubric	Course Number	Course Title
HUMA	1315	Fine Arts Appreciation Honors

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, architecture, drama, and dance) and the ways in which they express the values of cultures and human experience.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

HUMA 1315 - Fine Arts Appreciation

General

Course Key
16067

Course Rubric	Course Number	Course Title
HUMA	1315	Fine Arts Appreciation

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, architecture, drama, and dance) and the ways in which they express the values of cultures and human experience.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

HYDR 1345 - Hydraulics and Pneumatics

General

Course Key
815

Course Rubric	Course Number	Course Title
HYDR	1345	Hydraulics and Pneumatics

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). Discussion of the fundamentals of hydraulics and pneumatics, components of each system, and the operations, maintenance, and analysis of each system.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate the operation of basic hydraulic and pneumatic systems including associated instruments; interpret schematics; troubleshoot systems; and design a schematic drawing of a working system.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic concepts of fluid power by
    a. defining fluid power (1a, 1b, 2c);
    b. differentiating between the terms hydraulics and pneumatics (1a, 1b, 2a, 2c, 2e);
    c. explaining the history of the fluid power industry (1a, 1b, 2a, 2c, 2e);
    d. specifying the basic components of fluid power systems (1a, 1b, 2c, 2d, 2e);
    e. identifying the categories of personnel who are employed in the fluid power industry (1a, 1b, 2a, 2c, 2d, 2e).
2. Apply the physical properties of hydraulic fluids to hydraulic systems by
    a. defining the term fluid (1a, 1b, 2c, 2e);
    b. defining the terms specific weight, density, and specific gravity (1a, 1b, 2c);
    c. defining the terms pressure, head, and force (1a, 1b, 2c, 2d, 2e);
    d. differentiating between gauge pressure and absolute pressure (1a, 1b, 2a, 2d, 2e);
    e. calculating the force created by a pressure (1a, 1b, 2a, 2c, 2e);
    f. converting viscosity from one set of units to another (1a, 1b, 2a, 2c, 2d, 2e);
    g. explaining the difference between viscosity and viscosity index (1a, 1b, 2a, 2c).
3. Apply the principles of power and energy to the operation of hydraulic systems by
    a. defining the term efficiency (1a, 1b, 2c, 2d, 2e);
    b. explaining the conservation of energy principle (1a, 1b, 2a, 2c);
    c. calculating fluid flow rates and velocities using the equation of continuity (1a, 1b, 2c, 2d, 2e);
    d. determining the power delivered to a hydraulic cylinder (1a, 1b, 2c, 2d, 2e);
    e. describing the differences between elevation energy, pressure energy, and kinetic energy (1a, 1b, 2a, 2d, 2e);
    f. applying Bernoulli's equation to determine the energy transfer within a hydraulic system (1a, 1b, 2a, 2c, 2e);
    g. defining the terms elevation head, pressure head, and velocity head (1a, 1b, 2a, 2c, 2d);
    h. differentiating between the terms pump head, motor head, and head loss (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate an understanding of how friction affects the flow of fluid in a hydraulic system by
    a. differentiating between laminar and turbulent flow (1a, 1b, 2a, 2c, 2d);
    b. determining the Reynolds number at any location in a pipeline (1a, 1b, 2c, 2d, 2e);
    c. explaining the term friction factor (1a, 1b, 2a, 2c, 2d);
    d. determining friction factors for laminar and turbulent flow (1a, 1b, 2c, 2d, 2e);
    e. evaluating the head loss in a pipeline undergoing laminar or turbulent flow (1a, 1b, 2c, 2d, 2e);
    f. calculating the frictional losses in valves and fittings (1a, 1b, 2c, 2d, 2e);
    g. explaining the meaning of the term K factor (1a, 1b, 2a, 2c, 2d);
    h. calculating the equivalent length of a pipeline (1a, 1b, 2c, 2d, 2e).
5. Demonstrate an understanding of the operation of hydraulic pumps by
    a. distinguishing between positive displacement and dynamic (non-positive displacement) pumps (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining the operation of gear, vane, and piston pumps (1a, 1b, 2c);
    c. determining the flow rate delivered by positive displacement pumps (1a, 1b, 2c, 2d, 2e);
    d. differentiating between axial and radial piston pumps (1a, 1b, 2a, 2c, 2d, 2e);

e. explaining the difference between fixed and variable displacement pumps (1a, 1b, 2c, 2d, 2e);

f. evaluating pump performance by determining the volumetric, mechanical, and overall efficiencies (1a, 1b, 2a, 2c, 2d);

g. explaining pump cavitation and ways to eliminate its effects (1a, 1b, 2a, 2c, 2d, 2e);

h. explaining the causes of pump noise and understanding how to express noise sound intensity levels in decibels (1a, 1b, 2a, 2c, 2d, 2e);

i. describing the sequence of operations used to select a pump for a given application (1a, 1b, 2a, 2c, 2d, 2e).

6. Describe the operation of hydraulic cylinders (linear actuators) and cushioning devices by

a. describing the construction and design features of hydraulic cylinders (1a, 1b, 2c);

b. identifying the various types of hydraulic cylinder mounting and mechanical linkages for transmitting power (1a, 1b, 2a, 2c, 2d);

c. calculating the load carrying capacity, speed, and power of hydraulic cylinders during the extending and retracting strokes (1a, 1b, 2c, 2d, 2e);

d. determining the maximum pressure developed by cushions at the ends of a hydraulic cylinder (1a, 1b, 2a, 2c, 2d);

e. explaining the operation of double rod and telescoping cylinders (1a, 1b, 2c, 2d, 2e);

f. explaining the purpose, construction, and operation of hydraulic shock absorbers (1a, 1b, 2a, 2c, 2d, 2e);

g. analyzing hydraulic cylinder piston rod forces from external loads (1a, 1b, 2c, 2e).

7. Demonstrate an understanding of the operation of hydraulic motors by

a. evaluating torque/pressure/displacement relationships for limited rotation hydraulic motors (1a, 1b, 2a, 2c, 2d, 2e);

b. explaining the operation of gear, vane, and piston hydraulic motors (1a, 1b, 2c, 2e);

c. evaluating the performance of hydraulic motors by determining the volumetric, mechanical, and overall efficiencies (1a, 1b, 2c, 2d, 2e);

d. comparing the various performance factors of gear, vane, and piston hydraulic motors (1a, 1b, 2a, 2c, 2d, 2e);

e. determining the torque and power delivered to hydraulic motors (1a, 1b, 2c, 2d, 2e).

8. Demonstrate an understanding of the operation of hydraulic valves by

a. describing the purpose, construction, and operation of two, three and four way directional control valves (1a, 1b, 2a, 2c, 2d, 2e);

b. identifying the graphic symbols used for directional, pressure, and flow control valves (1a, 1b, 2c, 2d, 2e);

c. explaining how valves are actuated using manual, mechanical, fluid pilot, and electrical solenoid methods (1a, 1b, 2a, 2c, 2d);

d. describing the purpose, construction, and operation of pressure control valves (1a, 1b, 2a, 2c, 2d, 2e);

e. differentiating between a pressure relief valve, a pressure reducing valve, a sequence valve, and an unloading valve (1a, 1b, 2c, 2d, 2e);

f. determining the cracking pressure and full pump flow pressure of pressure relief valves (1a, 1b, 2c, 2d, 2e);

g. calculating the power loss in pressure relief and unloading valves (1a, 1b, 2c, 2e);

h. describing the purpose, construction, and operation of flow control valves (1a, 1b, 2a, 2c, 2d, 2e);

i. analyzing how flow control valves can control the speed of hydraulic cylinders (1a, 1b, 2c, 2d, 2e);

j. describing the purpose, construction, and operation of mechanical hydraulic, electro hydraulic, and cartridge valves (1a, 1b, 2a, 2c, 2d, 2e).

9. Demonstrate the ability to design and analyze complete hydraulic circuits for various systems by

a. describing the schematic (graphic) symbols for all hydraulic system components (1a, 1b, 2a, 2c, 2d, 2e);

b. describing the operation of complete hydraulic circuits drawn using graphic symbols for all components (1a, 1b, 2a, 2c, 2d, 2e);

c. determining the operating speeds and load carrying capacities of regenerative hydraulic cylinders (1a, 1b, 2c, 2d, 2e);

d. explaining the operation of mechanical hydraulic servo systems (1a, 1b, 2c, 2e);

e. performing a complete analysis of hydraulic circuit operation, including the effects of frictional losses (1a, 1b, 2a, 2c, 2d, 2e);

f. analyzing the speed control of hydraulic cylinders (1a, 1b, 2c, 2d, 2e).

10. Demonstrate an understanding of the various hydraulic conductors and fittings used for hydraulic systems by

a. sizing conductors to meet flow rate requirements (1a, 1b, 2a, 2c, 2d);

b. explaining the pressure rating of conductors (1a, 1b, 2c, 2d, 2e);

c. differentiating between the terms burst pressure and working pressure (1a, 1b, 2c, 2d, 2e);

d. explaining how the tensile stress in the wall of a conductor varies with fluid pressure, pipe diameter, and wall thickness (1a, 1b, 2c, 2d, 2e);

e. determining the required wall thickness of a conductor to prevent bursting under operating fluid pressure (1a, 1b, 2c, 2d, 2e);

f. identifying the standard commercial sizes of steel pipe and tubing (1a, 1b, 2a, 2c);

g. describing the various types of fittings used to connect hydraulic components to conductors (1a, 1b, 2c, 2d, 2e);

h. identifying the construction features and functions of flexible hoses (1a, 1b, 2d, 2e).

11. Demonstrate an understanding of how ancillary hydraulic devices are used in hydraulic systems by

a. describing the purpose, construction and operation of accumulators (1a, 1b, 2c);

b. describing the operation of pressure intensifiers (1a, 1b, 2c, 2d, 2e);

c. explaining the design features of reservoirs and determining the proper reservoir size for a given hydraulic system (1a, 1b, 2c, 2d, 2e);

d. describing the ways in which the temperature of the fluid of a hydraulic system can be controlled by heat exchangers (1a, 1b, 2a, 2c, 2e);

e. describing the operation of flow measurement devices such as the rotameter and turbine flow meter (1a, 1b, 2c, 2d, 2e);

f. describing the operation of pressure measuring devices such as the Bourdon gauge and Schrader gauge (1a, 1b, 2c, 2d, 2e).

12. Perform maintenance procedures on hydraulic systems by

a. identifying the common causes of hydraulic system failures (1a, 1b, 2a, 2c, 2d, 2e);

b. discussing the various types of fire and foam resistance fluids (1a, 1b, 2a, 2c, 2d);

c. explaining the neutralization number of a hydraulic fluid (1a, 1b, 2c, 2d, 2e);

d. describing the operation of filters and strainers and specifying their location in hydraulic circuits (1a, 1b, 2c, 2d, 2e);

e. calculating the beta ratio and beta efficiency of filters (1a, 1b, 2c, 2d, 2e);

f. explaining the mechanism of the wear of moving parts of hydraulic components due to solid particle contamination of the fluid (1a, 1b, 2a, 2c, 2d, 2e);

g. describing the problems caused by gases in hydraulic fluids (1a, 1b, 2a, 2c, 2d, 2e);

h. explaining how to troubleshoot fluid power circuits effectively depending on the symptoms of the problems involved (1a, 1b, 2a, 2c, 2d, 2e).

13. Demonstrate an understanding of the basic fundamentals of the operation of pneumatic systems by

a. applying the perfect gas laws to determine the pressure, volume, and temperature of a gas (1a, 1b, 2c, 2d, 2e);

b. describing the purpose, construction, and operation of compressors (1a, 1b, 2a, 2c);

c. calculating the power required to drive compressors to satisfy system requirements (1a, 1b, 2c, 2d, 2e);

d. determining the size of air receivers for meeting system pressure and flow rate requirements (1a, 1b, 2c, 2d, 2e);

e. explaining the purpose and operation of fluid conditioners including filters, regulators, lubricators, mufflers, and air dryers (1a, 1b, 2a, 2c, 2d, 2e);

f. calculating the pressure losses in pneumatic pipelines (1a, 1b, 2c, 2d, 2e);

g. determining how the flow rate of air can be controlled by valves (1a, 1b, 2c, 2e);

h. describing the purpose, construction, and operation of pneumatic pressure control valves, flow control valves, and directional control valves (1a, 1b, 2a, 2c, 2d, 2e);

i. explaining the construction and operation of pneumatic cylinders and motors (1a, 1b, 2a, 2c, 2d, 2e).

14. Apply the principles of pneumatic circuits to the applications of pneumatic systems by

a. developing pneumatic circuit designs using graphical symbols (1a, 1b, 2c, 2d, 2e);

b. determining pressure losses in pipelines of pneumatic circuits (1a, 1b, 2c, 2d, 2e);

c. troubleshooting pneumatic circuits to determine the cause of system malfunctions (1a, 1b, 2a, 2c, 2d, 2e);

d. analyzing the operation of pneumatic vacuum systems (1a, 1b, 2a, 2c, 2d, 2e);

e. determining the size of gas loaded accumulators (1a, 1b, 2c, 2d, 2e).

15. Demonstrate an understanding of the basic electrical controls for fluid power circuits by

a. explaining the operation of the various electrical components used in electromechanical relay control systems (1a, 1b, 2a, 2c, 2d, 2e);

b. comprehending the operation of electrical ladder diagrams (1a, 1b, 2c, 2d);

c. interrelating the operation of electrical ladder logic diagrams with the corresponding fluid power circuits (1a, 1b, 2a, 2c, 2d, 2e);

d. troubleshooting basic electrohydraulic and electro pneumatic circuits for determining the causes of system malfunctions (1a, 1b, 2a, 2c, 2d, 2e).

16. Apply the principles of logic control to the operation of fluid power systems by

a. explaining the operating principles of moving part logic (MPL) devices (1a, 1b, 2a, 2c, 2d, 2e);

b. explaining how MPL is used to control fluid power systems (1a, 1b, 2a, 2c, 2d, 2e);

c. explaining MPL controlled fluid power circuit diagrams and the corresponding system operation (1a, 1b, 2c, 2d);

d. explaining the control functions and establish truth tables for OR/NOR, AND/NAND, NOT, EXCLUSIVE-OR/NOR, and FLIP-FLOP devices (1a, 1b, 2c, 2d, 2e);

e. performing the fundamental operations of Boolean algebra as related to the control of fluid power systems (1a, 1b, 2c, 2d, 2e);

f. applying Boolean algebra techniques to control fluid power systems (1a, 1b, 2c, 2e).

IBUS 1301 - Principles of Exports

General

Course Key
9606

Course Rubric	Course Number	Course Title
IBUS	1301	Principles of Exports

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Export management processes and procedures. Includes governmental controls and compliance, licensing of products, documentation, commercial invoices, and transportation. Emphasizes human and public relations, management of personnel, finance, and accounting procedures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain documentation, logistics, and transportation of export management; and apply export processes and procedures to public, customer, and employee relationships, and to other functional areas.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terms and how they relate to the overall concept of exports by
    a. identifying terms and definitions used in the export management process and procedures (1a, 1b, 2c);
    b. explaining government controls, compliance, and licensing of products (1a, 1b, 2c);
    c. explaining the details of documentation, commercial invoices, and transportation requirements (1a, 1b, 2c).
2. Demonstrate an understanding of how to apply export processes and procedures by
    a. identifying terms and definitions used in public, customer, and employee relationships (1a, 1b, 2c);
    b. identifying various local, state, and federal agencies that impact export operations (1a, 1b, 2c).
3. Demonstrate the ability to apply decision making techniques based on time, materials, and space by
    a. gathering all needed reference data to solve a complex export problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple step decision making process to solve an export problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to an export problem in a group setting (1a, 1b, 1c, 2b, 2c, 2e).

IBUS 1302 - Principles of Imports

General

Course Key
9607

Course Rubric	Course Number	Course Title
IBUS	1302	Principles of Imports

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Practices and processes of import management operations including such factors as government controls and compliance. Emphasizes the preparation and understanding of import documents such as customs invoices, packing lists, and commercial invoices.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain documentation, logistics, and transportation of export management; and apply export processes and procedures to public, customer, and employee relationships, and to other functional areas.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terms and how they relate to the overall concept of exports by
    a. identifying terms and definitions used in the export management process and procedures (1a, 1b, 2c);
    b. explaining government controls, compliance, and licensing of products (1a, 1b, 2c);
    c. explaining the details of documentation, commercial invoices, and transportation requirements (1a, 1b, 2c).
2. Demonstrate an understanding of how to apply export processes and procedures by
    a. identifying terms and definitions used in public, customer, and employee relationships (1a, 1b, 2c);
    b. identifying various local, state, and federal agencies that impact export operations (1a, 1b, 2c).
3. Demonstrate the ability to apply decision making techniques based on time, materials, and space by
    a. gathering all needed reference data to solve a complex export problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple step decision making process to solve an export problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to an export problem in a group setting (1a, 1b, 1c, 2b, 2c, 2e).

IFWA 2446 - Quantity Procedures

General

Course Key
16528

Course Rubric
IFWA

Course Number
2446

Course Title
Quantity Procedures

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4). Exploration of the theory and application of quantity procedures for the operation of commercial, institutional, and industrial food services. Emphasis on quantity cookery and distribution. ServSafe Manager Certificate and approved application for enrollment is required. See program director for additional information. Required Prerequisite: DITA-1301, FDNS-1370 or CHEF-1301; and TSI Met in Math.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): DITA-1301, FDNS-1370 or CHEF-1301; and TSI Met in Math

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform mathematical calculations using U.S. and metric measurements; convert weights to measures and vice versa; enlarge recipes through formulas; plan menus for volume feeding; purchase and receive food supplies for large quantity functions; and prepare mockup or actual plates and serve in simulated or actual large quantity functions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Perform mathematical calculations using U.S. and metric measurements by
    a. converting weights to measures and vice versa (1a, 1b, 2c);
    b. calculating percent yields (1a, 1b, 2c);
    c. enlarging recipes through formulas (1a, 1b, 2c);
    d. calculating cost of an ingredient for a given recipe (1a, 1b, 2c);
    e. determining the total cost for a given recipe (1a, 1b, 2c);
    f. calculating utilizing decimal equivalents of a pound (1a, 1b, 2c);
    g. determining a recipe conversion factor (1a, 1b, 2c);
    h. applying critical thinking skills (KNDT 1.3) (1b, 2c).
2. Identify kitchen operations by
    a. selecting proper kitchen tools/equipment (1b, 2a);
    b. using kitchen tools/equipment properly (1b, 2a);
    c. showing proper receiving/storage procedures for food (1b, 1c, 2a);
    d. showing proper sanitation procedures for food (1b, 1c, 2a);
    e. preparing mockup and/or actual plates for a large quantity function (1b, 2b);
    f. applying safety and sanitation principles related to food, personnel, and consumers (KNDT 4.3) (1a, 1b, 2c);
    g. proposing and using procedures as appropriate to the practice setting to promote sustainability, reduce waste, and protect the environment (CNDT 4.7) (2a, 2d);
    h. performing supervisory functions for purchasing, production, and service of food that meets nutrition guidelines, cost parameters and health needs (CDNT 3.7) (1a, 1b, 2a, 2b);
    i. describing the processes involved in delivering quality food and nutrition services (KNDT 4.5) (1a, 1b, 2a, 2d);
    j. delivering nutrition services through quality improvement and customer satisfaction activities (CNDT 4.1) (1a, 1b, 2a, 2d).
3. Identify dining room operations for large quantity functions by
    a. identifying various styles of service: butler, American, French, buffet, English (1b);
    b. identifying various items of service ware (1b);
    c. identifying various styles of buffet setup according to amount of patrons (1b);
4. Plan menus for volume feeding by
    a. selecting proper foods for menu (1a, 1b, 2a);
    b. writing recipes in a block format (1a, 1b, 2c);
    c. creating a purchase order for a large quantity function (1a, 1b, 2c);
    d. creating a prep list (1a, 1b, 2a, 2c);
    e. creating a staffing schedule (1a, 1b, 2a, 2c);
    f. differentiating between a tested recipe and a standardized recipe (1a, 1b, 2c);
    g. preparing foods in actual and simulated large quantity functions (1b, 2b);
    h. serving in actual and simulated large quantity functions (1b, 1c, 2b);
    i. collecting performance improvement, financial, and productivity data (CNDT 1.3) (1a, 1b, 2c, 2d);
    j. evaluating event/personal performance after completion (1a, 1b, 1c, 2b);
    k. modifying recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups, and individuals (CNDT 3.8) (1a, 1b, 2a, 2c, 2d);
    l. Assisting with marketing clinical and customer services (CNDT 4.6) (1a, 1b, 1c, 2b).
5. Demonstrate professional attributes in all areas of practice (CNDT 2.8) by
    a. using clear and effective oral and written communication (CNDT 2.2) (1a, 1b);
    b. functioning as a member of inter-professional teams (CNDT 2.5) (1c, 2b);
    c. demonstrating how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions related to the dietetics technician level of practice (KNDT 1.1) (1a, 2c, 2e);
    d. selecting and using appropriate information technologies to locate and apply evidence-based guidelines and protocols (KNDT 1.2) (1b, 2c, 2e);
    e. promoting team involvement and values the skills of each member (CNDT 5.5) (1a, 1b, 1c, 2b).

IMED 1316 - Web Design I

General

Course Key
9935

Course Rubric
IMED

Course Number
1316

Course Title
Web Design I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Instruction in web design and related graphic design issues including mark-up languages, web sites, and browser issues. Required Prerequisite: ARTC-1305 Required Corequisite: ARTC-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTC-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ARTC-1302
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTC 1305
Required Corequisite(s): ARTC 1302

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify how the internet functions; apply design techniques in the creation and optimization of graphics and other embedded elements; demonstrate the use of World Wide Web Consortium (W3C) formatting and layout standards; and design and build a web site.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of internet terminology and tools by
    a. identifying markup language (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining file transfer protocol (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. defining email (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. describing internet access software (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. identifying benefits of web development software (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. operating color scanner (1a, 1b, 1c, 2a, 2b, 2c, 2e).
2. Demonstrate an understanding of effective web page design by
    a. analyzing effective and ineffective web design (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining linking pages (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. defining effective use of tables (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. defending use of frames (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. optimizing graphics for use on a webpage (1a, 1b, 1c, 2a, 2b, 2c, 2e).
3. Demonstrate the ability to compose web pages by
    a. identifying limitations of web development software (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. reorganizing a nonworking website (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. securing website hosting (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. registering domain names (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. demonstrating proficiency in use of forms (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. applying design principles in web page design (1a, 1b, 1c, 2a, 2b, 2c, 2e);

g. creating interactive web page (1a, 1b, 1c, 2a, 2b, 2c, 2e);

h. producing home page (1a, 1b, 1c, 2a, 2b, 2c, 2e).

IMED 2315 - Web Design II

General

Course Key
15252

Course Rubric
IMED

Course Number
2315

Course Title
Web Design II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Mark-up language and advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing websites, according to World Wide Web Consortium (W3C) standards and legal issues. Required Prerequisite: ARTC-1302 and IMED-1316 Recommended Prerequisite: ARTC-1305 and ARTC-1453

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take IMED-1316(9935) ARTC-1302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take artc-1305 artc-1453;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTC 1302 and IMED 1316
Recommended Prerequisite(s): ARTC 1305 and ARTC 1453

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate the use of World Wide Web Consortium (W3C) standards for style, accessibility, layout, and formatting; build web pages with dynamic customization capabilities; develop web sites designed for usability and cultural diversity; and utilize design strategies to increase the success of locating the site via search engines.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify advanced web design tools by
    a. describing the use of computer based software to create forms (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. defining the use of computer based software to create databases (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. identifying how databases are used to keep e-business websites current (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. explaining rollovers (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. analyzing creative use of .swf files (1a, 1b, 1c, 2a, 2b, 2c, 2e).

2. Implement effective web page design by
    a. applying professional visual design concepts to web page design (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. demonstrating proficiency in use of digital imaging and editing software (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. creating client side image maps (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. implementing forms using templates (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. creating internal and external style sheets (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. demonstrating animated .swf files in websites (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    g. utilizing proficiency in use of frames (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    h. building complex interactive web pages (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    i. integrating interactive buttons with webpages (1a, 1b, 2c, 2d, 2e);
    j. creating websites accessible to disabled persons (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    k. optimizing web pages for search engines (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    l. demonstrating the use of cookies (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    m. building websites with dynamic customization capabilities (1a, 1b, 1c, 2a, 2b, 2c, 2e).

INEW 2434 - Advanced Web Programming

General

Course Key
8040

Course Rubric
INEW

Course Number
2434

Course Title
Advanced Web Programming

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Web programming using industry-standard languages and data stores. Design, code, and implement a dynamic website; and develop connectivity between data store and website.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design, code, and implement a dynamic website; and develop connectivity between data store and website.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of server side technology by
    a. describing the components of a web server (1a, 2a, 2c);
    b. defining LAMP, WAMP, and WIMP (1a);
    c. comparing the differences between ASP.NET and other technologies such as PHP and Java (JSP and Servlets) (1a, 1b, 2a, 2d).
2. Develop a server side web application using PHP or ASP.NET (C# or Visual Basic) or Java (JSP and Servlets) without the use of a database by
    a. developing a one page web application using PHP or ASP.NET (C# or Visual Basic) or Java (JSP and Servlets) (1a, 1b, 2a, 2c, 2d, 2e);
    b. developing a multiple page web application using PHP or ASP.NET (C# or Visual Basic) or Java (JSP and Servlets) (1a, 1b, 2a, 2c, 2d, 2e).
3. Develop a server side database (MySQL or Microsoft SQL Server) web application using PHP or ASP.NET (C# or Visual Basic) or Java (JSP and Servlets) by
    a. developing a web application which gets information from a database (1a, 1b, 2a, 2c, 2d, 2e);
    b. developing a web application which inserts new information into a database (1a, 1b, 2a, 2c, 2d, 2e);
    c. developing a web application which edits information in a database (1a, 1b, 2a, 2c, 2d, 2e).
4. Develop secure websites by
    a. developing a web application which authenticates a user (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing the process securing a website both internally and externally (1a, 1b, 2a, 2c, 2d, 2e).

INMT 1305 - Introduction to Industrial Mainentance

General

Course Key
11767

Course Rubric
INMT

Course Number
1305

Course Title
Introduction to Industrial Maintenance

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring instruments and general safety rules common in industry, including lock-out tag-out.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify various types of fasteners common to industrial maintenance; utilize various hand and power tools; utilize precision measuring instruments; and demonstrate proper lock-out/tag-out procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Understand the role and function of maintenance organization within an industrial environment (1a, 1b).
2. Describe the roles, responsibilities, and expectations of the maintenance technician (1a, 1b, 1c, 2d).
3. Identify the type and function of common equipment found within the process and energy industry (1a, 1b, 2e).
4. Define and demonstrate the use of measurement and dimension systems (1a, 1b, 2c, 2e).
5. Understand and demonstrate the function and use of basic hand tools and power tools (1a, 1b, 2e).
6. Identify and describe the function and limitations of common fastening systems and components (1a, 1b, 2e).
7. Identify and describe the use of different lubrication applications (1a, 1b, 2e).
8. Identify and describe the causes for bearing failures (1a, 1b, 2e).
9. Describe common mechanical drive systems and their components (1a, 1b, 2e).
10. Describe the primary failure modes for machinery and systems (1a, 1b, 2c, 2e).
11. Describe the elements of a successful preventative maintenance program (1a, 1b, 2b, 2c, 2d).
12. Describe the elements and application of predictive maintenance technologies (1a, 1b, 2b, 2c, 2d).

INMT 1370 - Composite Fundamentals

General

Course Key
13738

Course Rubric
INMT

Course Number
1370

Course Title
Composite Fundamentals

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Technical Local Need

Description
(3-2-2) An introduction to composites with an emphasis on types, properties, processes, testing and assembly. Topics include material configuration and application, mechanical properties and testing methods, designs and prints, tooling and manufacturing, environmental control and other manufacturing practices.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Demonstrate an understanding of composite fabrication/bonding practices by
    a. interpreting composite fabrication drawings (1a, 1b, 2c, 2e);
    b. demonstrating and modeling safe composite working practices (1a, 1b, 1c, 2a, 2b);
    c. preparing composite molds and tools by applying release agents (1a, 1b, 2c, 2e);
    d. preparing fiber reinforcements, metal, and polymer resin systems for composite bonding (1a, 1c, 2a, 2c, 2e).
2. Demonstrate the ability to fabricate a composite or metal bonded structure by
    a. placing and positioning fiber reinforcements or metal facings on or in a mold (1a, 1b, 2c, 2e);
    b. preparing and placing core structures on a fiber reinforcement or metal facing (1a, 1b, 2c, 2e);
    c. demonstrating vacuum bagging on a composite article (1a, 1b, 2c, 2e).
3. Demonstrate the ability to cure/bond a composite article with heat by
    a. installing thermocouples on a composite article prior to curing/bonding (1a, 1b, 2c, 2e);
    b. configuring a heat source and a heat controller for composite curing/bonding (1a, 1b, 2c, 2e);
    c. operating a heat source and heat controller to cure a composite article (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of typical composite fabrication flaws such as, but not limited to, bridging, voids, porosity, and delamination found in a composite structure by
    a. performing and documenting the results of composite article final inspections (1a, 1b, 2c, 2e).

INMT 2345 - Industrial Troubleshooting

General

Course Key
16504

Course Rubric
INMT

Course Number
2345

Course Title
Industrial Troubleshooting

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). An advanced study of the techniques used in troubleshooting various types of industrial equipment to include mechanical, electrical, hydraulic, and pneumatic systems and their control devices. Emphasis will be placed on the use of schematics and diagrams in conjunction with proper troubleshooting procedures. Required Prerequisite(s): CETT 1409 or CETT-1403 and CETT-1405 Recommended Prerequisite(s): INMT-1305 and HYDR-1345

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): CETT 1409 or CETT-1403 and CETT-1405

Recommended Prerequisite(s): INMT-1305 and HYDR-1345

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate a working knowledge of various troubleshooting techniques; properly troubleshoot hydraulic, pneumatic, and electrical systems using schematics and diagrams; troubleshoot mechanical drive systems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Demonstrate an understanding of workplace safety and methods by understanding the importance of personal protective equipment (1a, 1b, 2c, 2e).
2. Demonstrate proper lifting techniques, general electrical safety, proper methods of extinguishing a fire, and classifications (1a, 1b, 2c, 2e).
3. Demonstrate ability to apply lock out/tag out as needed in the workplace (1a, 1b, 2c, 2e).
4. Demonstrate an understanding and use of basic hand tools and fasteners, types of power tools, proper usage of these tools, and the importance of a tool inspection before use (1a, 2a, 2c, 2e).
5. Identify different types of fasteners and how to determine torque of a bolt and the importance of torque specifications (1a, 2a, 2c, 2e).
6. Demonstrate the ability to read and interpret dimensional drawings and schematics, including electrical drawings, piping systems, and welding schematics (1a, 1b).
7. Demonstrate an understanding of mechanical power transmission, including styles of belts and chains in drive systems (1a, 1b, 2c).
8. Demonstrate basic knowledge of gears and gearboxes (1a, 1b, 2c).
9. Perform speed calculations for belt drives, gear drives, and chain drives (1a, 1b, 2c).
10. Demonstrate an understanding of bearings to the relation of importance to mechanical systems, including types, proper installation and removal, and lubrication (1a, 1b, 2e).
11. Identify reasons for bearing failure (1a, 1b, 2e).
12. Demonstrate an understanding of lubrication, seals, and packing; and their importance to mechanical systems, including lubrication types, applications in industry, and basic terms (1a, 1b).
13. Demonstrate an understanding of pumps and compressors, including types and delivery (1a, 1b, 2c, 2e).
14. Identify common problems with troubleshooting pumps and compressors (1a, 1b, 2c, 2e).
15. Calculate volumetric efficiency and delivery (1a, 1b, 2c, 2e).
16. Demonstrate an understanding of fluid power fundamentals, including the effects of compressing air for a fluid power system, how force is transmitted through a hydraulic system, and explain methods and operation of valve actuation (1a,1b, 2e).
17. Demonstrate an understanding of electrical fundamentals, including terminology and symbols used, basic Ohm's law formulae, and ability to define electricity (1a, 1b, 2a, 2c, 2e).
18. Demonstrate proper usage of test equipment and importance of safety and wiring methods in relation to the National Electrical Code, basic industrial electronics, control, and controlled devices (1a, 1b, 2a, 2c, 2e).
19. Demonstrate an understanding of a transformer, including basic operation, and identifying single-phase and three-phase transformers (1a, 1b, 2e).
20. Demonstrate basic knowledge of power distribution systems (1a, 1b, 2e).
21. Demonstrate an understanding of electrical machinery, including different types of DC generators, DC motors, programmable logic controllers, and AC alternators and their functions (1a,1b, 2e).
22. Demonstrate knowledge of theory of operation of three-phase motors (1a,1b, 2e).
23. Demonstrate an understanding of motor control circuits and controlled devices, including types, proper usage, and how they control speed, reversing, braking, and stopping (1a,1b, 2e).
24. Demonstrate an understanding of lighting, including correctly wired types of ballasts, common types of lamps, LED's, and proper re-lamping procedures (1a, 1b, 2e).
25. Demonstrate an understanding of basic welding knowledge, including safety techniques in gas and arc welding, types of welds and joints, and proper startup and shutdown procedures (1a, 1b, 2e).
26. Demonstrate and develop a preventive maintenance (PM) program, understanding the importance of maintaining a history log, coordinating an effective PM inspection, and demonstrating proper procedures of work permits in correlation to safety hazards (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
27. Identify imminent failure and proper diagnosis of mechanical and electrical machinery in relation to producing PM (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

INMT 2380 - Coop Educ Industrial/Manufacturing Tech

General

Course Key
14423

Course Rubric
INMT

Course Number
2380

Course Title
Cooperative Education - Manufacturing Technology/Technician

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
17

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-17) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Within the lecture component, an OSHA 10 hour General Industry card provided. Required Prerequisite(s): INMT-1305 and INMT-2345

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take INMT-1305 INMT-2345;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): INMT 1305 and INMT 2345

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Demonstrate legal and ethical behavior, safety practices, interpersonal, and teamwork skills (1c, 2b, 2d).
3. Apply appropriate written and verbal communication skills using the terminology of the occupation and the business/industry (1a, 1b, 2b).
4. Obtain an OSHA 10-hour General Industry card upon completion of the course, to aid students with recognizing workplace hazards (1a, 1b, 2c).

INRW 0114 - Noncourse Based Read/Write

General

Course Key
16069

Course Rubric
INRW

Course Number
0114

Course Title
Non-course Based Reading/Writing

Lecture Hours
0

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(0-0-0) Integration of critical reading and academic writing skills. Successful completion of this intervention and approved credit level course fulfills TSI requirements for reading and/or writing. This is a developmental course and cannot be used to fulfill degree requirements. Required Prerequisite(s): Equivalent scores on an approved placement test. Required Co-Requisite: Approved Core Course

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

This is a House Bill 2223 corequisite course and requires registration in a developmental corequisite section.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take READ-DEV2 WRIT-DEV2; # Take READ-DEV2 WRIT-PASS; # Take READ-PASS WRIT-DEV2; # Take READ-PASS WRIT-OBJT; # Take READ-DEV2 WRIT-OBJT; # Take INRW-CR01 INRW-ESS2;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

This is a House Bill 2223 corequisite course and requires registration in a developmental corequisite section.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

Take ENGL-1301 GOVT-2305 HIST-1301 HIST-1302 PSYC-2301 or SOCI-1301;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

INRW 0190 - Adult Education Reading/Writing

General

Course Key
16537

Course Rubric
INRW

Course Number
0190

Course Title
Adult Education Reading and Writing

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-1-0) A combined lecture/computer based course focusing on improvement of basic reading and writing skills. This is an Adult Education course and cannot be used to fulfill degree requirements or to qualify for federal aid, including VA educational benefits. It is designed to review basic skills and prepare students for INRW co-requisite courses.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

No Requirements

INRW 0399 - Integrated Reading and Writing II

General

Course Key
16068

Course Rubric
INRW

Course Number
0399

Course Title
Integrated Reading and Writing II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This three-hour lecture performance-based course is a support course taken concurrently with ENGL 1301 or other TSI-dependent credit course and is not a stand-alone offering. If successfully completed, the course fulfills TSI requirements for reading and writing. This is a developmental course and cannot be used to fulfill degree requirements. Required Prerequisites: INRW-0090 with minimum grade of C (70%), or equivalent scores on an approved placement test. Required Co-Requisite: ENGL-1301 or other approved TSI-dependent credit course

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisites: INRW-0190 with minimum grade of C (70%), or equivalent scores on an approved placement test.

Required Co-Requisite: ENGL-1301 or other approved TSI-dependent credit course

ITCC 1414 - CCNA 1: Introduction to Networks

General

Course Key
14713

Course Rubric
ITCC

Course Number
1414

Course Title
CCNA 1: Introduction to Networks

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) This course covers networking architecture, structure, security, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Recommended Prerequisite: ITNW-1425, or consent of Department Chair

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ITNW-1425;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITNW 1425, or consent of Department Chair

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Configure a small network using basic security; perform basic configuration on routers and switches; implement IP addressing schemes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Configure switches and end devices to provide access to local and remote network resources by
    a. explaining the advances in modern network technologies (1a, 1b, 2d);
    b. implementing initial settings including passwords, IP addressing, and default gateway parameters on a network switch and end devices (1a, 1b, 2c, 2d, 2e).
2. Explain how physical and data link layer protocols support the operation of Ethernet in a switched network by
    a. explaining how network protocols enable devices to access local and remote network resources (1a, 1b, 2d);
    b. explaining how physical layer protocols, services, and network media support communications across data networks (1a, 1b, 2d);
    c. explaining how media access control in the data link layer supports communication across networks (1a, 1b, 2d);
    d. explaining how Ethernet operates in a switched network (1a, 1b, 2d).
3. Configure routers to enable end-to-end connectivity between remote devices by
    a. explaining how routers use network layer protocols and services to enable end-to-end connectivity (1a, 1b, 2c, 2d);
    b. explaining how ARP and ND enable communication on a network (1a, 1b, 2d);
    c. implementing initial settings on a router and end devices (1a, 1b, 2a, 2c, 2d, 2e).
4. Create IPv4 and IPv6 addressing schemes and verify network connectivity between devices by
    a. calculating numbers between decimal, binary, and hexadecimal systems (1a, 1b, 2c, 2d);
    b. calculating an IPv4 subnetting scheme to efficiently segment a network (1a, 1b, 2c, 2d);
    c. implementing an IPv6 addressing scheme (1a, 1b, 2c, 2d, 2e).
5. Explain how the upper layers of the OSI model support network applications by
    a. comparing the operations of transport layer protocols in supporting end-to-end communication (1a, 1b, 2c, 2d);
    b. explaining the operation of application layer protocols in providing support to end-user applications (1a, 1b, 2c, 2d).
6. Configure a small network with security best practices by
    a. configuring switches and routers with device hardening features to enhance security (1a, 1b, 2a, 2c, 2d, 2e);
    b. implementing a network design for a small network to include a router, a switch, and end devices (1a, 1b, 2a, 2c, 2d, 2e).
7. Troubleshoot connectivity in a small network by
    a. using various tools to test network connectivity (1a, 1b, 2a, 2c, 2d, 2e).

ITCC 1444 - CCNA 2: Switch/Routing/Wireless Essent

General

Course Key
14728

Course Rubric
ITCC

Course Number
1444

Course Title
CCNA 2: Switching, Routing, and Wireless Essentials

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Describes the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts; provides an in-depth understanding of how routers and switches operate and are implemented in the LAN environment. Recommend Prerequisite: ITCC-1414

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Recommended Prerequisite

10
A Requirement block where all subrequirements are required

#Take ITCC-1414
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITCC 1414

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Configure, secure, and maintain routers and switches; resolve common issues with routing protocols, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks; configure WLANs.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Configure VLANs and Inter-VLAN routing applying security best practices by
    a. configuring devices by using security best practices (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining how Layer 2 switches forward data (1a, 1b, 2c, 2d);
    c. implementing VLANs and trunking in a switched network (1a, 1b, 2a, 2c, 2d, 2e).
2. Troubleshoot inter-VLAN routing on Layer 3 devices (1a, 1b, 2a, 2b, 2c, 2d, 2e).
3. Configure redundancy on a switched network using STP and EtherChannel by
    a. explaining how STP enables redundancy in a Layer 2 network (1a, 1b, 2c, 2d);
    b. describing EtherChannel (1a, 1b, 2c, 2d);
    c. configuring EtherChannel (1a, 1b, 2a, 2c, 2d, 2e).
4. Troubleshoot EtherChannel on switched networks (1a, 1b, 2a, 2c, 2d, 2e).
5. Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols by
    a. implementing DHCPv4 to operate across multiple LANs (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining how FHRPs provide default gateway services in a redundant network (1a, 1b, 2c, 2d).
6. Configure dynamic address allocation in IPv6 networks (1a, 1b, 2a, 2c, 2d, 2e).
7. Configure WLANs using a WLC and L2 security best practices by
    a. explaining how WLANs enable network connectivity (1a, 1b, 2c, 2d);
    b. implementing a WLAN using a wireless router and WLC (1a, 1b, 2a, 2c, 2d, 2e).
8. Configure switch security to mitigate LAN attacks by
    a. explaining how vulnerabilities compromise LAN security (1a, 1b, 2c, 2d);
    b. implementing switch security to mitigate LAN attacks (1a, 1b, 2a, 2c, 2d, 2e).
9. Configure IPv4 and IPv6 static routing on routers by
    a. explaining how routers use information in packets to make forwarding decisions (1a, 1b, 2a, 2c, 2d);
    b. configuring IPv4 and IPv6 static routes (1a, 1b, 2a, 2c, 2d, 2e);
    c. troubleshooting static and default route configurations (1a, 1b, 2a, 2b, 2c, 2d, 2e).

ITCC 2420 - CCNA 3: Enterp/Netwrk/Security/Automat

General

Course Key
14734

Course Rubric
ITCC

Course Number
2420

Course Title
CCNA 3: Enterprise Networking, Security, and Automation

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. Emphasizes network security concepts and introduces network virtualization and automation. Recommended Prerequisite: ITCC-1444

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ITCC-1444;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITCC 1444

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Configure advanced routing and switching protocols; resolve common issues with routing and switching protocols; identify threats and enhance network security; implement IPv4 Access Control Lists (ACLs); configure Network Address Translation (NAT) services; explain virtualization, software defined networking, and automation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Configure single-area OSPFv2 in both point-to-point and multiaccess networks by
    a. explaining how single-area OSPF operates in both point-to-point and broadcast multiaccess networks (1a, 1b, 2a, 2c, 2d);
    b. implementing single-area OSPFv2 in both point-to-point and broadcast multiaccess networks (1a, 1b, 2a, 2c, 2d, 2e).
2. Explain how to mitigate threats and enhance network security using access control lists and security best practices by
    a. explaining how vulnerabilities, threats, and exploits can be mitigated to enhance network security (1a, 1b, 2a, 2c, 2d);
    b. explaining how ACLs are used as part of a network security policy (1a, 1b, 2a, 2c, 2d).
3. Implement standard IPv4 ACLs to filter traffic and secure administrative access (1a, 1b, 2a, 2c, 2d, 2e).
4. Configure NAT services on the edge router to provide IPv4 address scalability (1a, 1b, 2a, 2c, 2d, 2e).
5. Explain techniques to provide address scalability and secure remote access for WANs by
    a. explaining how WAN access technologies can be used to satisfy business requirements (1a, 1b, 2a, 2c, 2d);
    b. explaining how VPNs and IPsec secure site-to-site and remote access connectivity (1a, 1b, 2a, 2c, 2d).
6. Explain how to optimize, monitor, and troubleshoot scalable network architectures by
    a. explaining the characteristics of scalable network architectures (1a, 1b, 2a, 2c, 2d);
    b. troubleshooting enterprise networks (1a, 1b, 2a, 2b, 2c, 2d).
7. Explain how networking devices implement QoS (1a, 1b, 2a, 2c, 2d).
8. Implement protocols to manage the network (1a, 1b, 2a, 2c, 2d, 2e).
9. Explain how technologies such as virtualization, software defined networking, and automation affect evolving networks by
    a. explaining the purpose and characteristics of network virtualization (1a, 1b, 2a, 2c, 2d);
    b. explaining how network automation is enabled through RESTful APIs and configuration management tools (1a, 1b, 2a, 2c, 2d).

ITNW 1309 - Fundamentals of Cloud Computing

General

Course Key
14902

Course Rubric
ITNW

Course Number
1309

Course Title
Fundamentals of Cloud Computing

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to Cloud computing from a business and technical perspective, including Cloud concepts, services, architecture, system integration, connectivity, data center migration, administration, security, compliance and technical support. Coverage includes preparation for industry certifications. Topics may adapt to changes in industry practices. Recommended Prerequisite/Co-Requisite(s): CPMT-1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Recommended Requisites

10
A Requirement block where all subrequirements are required

#Take CPMT-1403;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s) or Corequisite(s): CPMT 1403

Course Learning Outcomes

Course Learning Outcomes
Explain the essential characteristics of cloud services; describe cloud deployment and service models; describe the organizational capabilities and implications for the successful adoption of cloud computing; describe cloud infrastructure and enabling technologies; create, manage, and scale a virtual server in a cloud environment; describe maintenance operations and security in the cloud; and identify business drivers for cloud computing.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the essential characteristics of Cloud services (1a, 1b, 2c).
2. Describe the steps for successful Cloud adoption (1a, 1b, 2c).
3. Describe data center infrastructure management (1a, 1b, 2c).
4. Identify business drivers for Cloud computing (1a, 1b, 2c).

ITNW 1408 - Implement/Support Client Operating Syst

General

Course Key
14948

Course Rubric
ITNW

Course Number
1408

Course Title
Implementing and Supporting Client Operating Systems

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) The fundamentals of managing and configuring local, network, and distributed network clients. Topics may adapt to changes in industry practices. Recommended Prerequisite(s): CPMT 1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take cpmt-1403;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CPMT 1403

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Install and configure network clients; setup users, groups, policies, and profiles; configure hardware components and applications; set up and maintain logon security and security for files and printers; configure and optimize clients in multiple environments.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the client operating system by
    a. listing common client operating systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. discussing similarities and differences between a client operating system and a server operating system (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. describing the hardware requirements of the client operating system being used for the course (1a, 1b, 1c, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of operations of the client operating system by
    a. installing and configuring network clients (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. installing the operating system (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. setting up users, groups, policies, and profiles (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. configuring hardware components and applications (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. managing user accounts (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. demonstrating the installation of application software (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. identifying the requirements for antivirus protection (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    h. listing security measures to protect used data (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    i. setting up and maintaining a logon security and security for files and printers (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. demonstrating peer to peer networking practices (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    k. demonstrating the installation of a printer (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    l. describing backup procedure and common media (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    m. demonstrating common wireless networking (1a, 1b, 1c, 2a, 2c, 2d, 2e).
3. Demonstrate common troubleshooting by
    a. starting and stopping task (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. starting and stopping print services (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. demonstrating changing file access permissions (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. configuring and optimizing clients in multiple environments (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

ITNW 1425 - Fundamentals of Networking Technologies

General

Course Key
14947

Course Rubric
ITNW

Course Number
1425

Course Title
Fundamentals of Networking Technologies

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Recommended Prerequisite(s): CPMT 1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take cpmt-1403;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CPMT 1403

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and use network transmission media; explain the OSI model; identify the characteristics of network topologies and protocols; identify the functions of a network operating system and distinguish between centralized, client/server, and peer-to-peer systems; and distinguish between Local Area Networks (LANs) and Wide Area Networks (WANs) and identify the components used to expand a LAN into a WAN.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify and use network transmission media by
    a. comparing network transmission media (1a, 2c, 2d, 2e);
    b. selecting the appropriate medium for a variety of networking environments (1a, 2c, 2d, 2e);
    c. comparing physical and data link networking standards such as ethernet and 802.11, including associated media, speeds, and limitations (1a, 2c, 2d, 2e).
2. Demonstrate an understanding of the OSI model by
    a. explaining the OSI model (1a, 2c, 2d, 2e);
    b. explaining why the OSI model is useful as a means of understanding and modeling networks (1a, 2c, 2d, 2e).
3. Demonstrate an understanding of the primary network topologies/protocols by
    a. comparing the primary network topologies (1a, 2c, 2d, 2e);
    b. determining the appropriate environment for each (1a, 2c, 2d, 2e).
4. Demonstrate the ability to identify the functions of a network operating system and distinguish between centralized, client/server, and peer-to-peer systems by
    a. comparing centralized client/server networks and peer-to-peer networks (1a, 2c, 2d, 2e);
    b. determining the appropriate use for each centralized client/server network and peer-to-peer network (1a, 2c, 2d, 2e).
5. Demonstrate an understanding of Local Area Networks (LANs) and Wide Area Networks (WANs), including identifying the components used to expand a LAN into a WAN by
    a. comparing local area networks (LANs) and wide area networks (WANs) (1a, 2c, 2d, 2e);
    b. explaining the architectures used by LANs and WANs (1a, 2c, 2d, 2e);
    c. selecting components used to expand a LAN into a WAN (1a, 2c, 2d, 2e).
6. Demonstrate an understanding of the TCP/IP basic architecture and its utilities, including demonstrating how to configure a node for TCP/IP by
    a. explaining the TCP/IP basic architecture (1a, 2c, 2d, 2e);
    b. comparing the TCP/IP basic architecture to the OSI model (1a, 2c, 2d, 2e);
    c. comparing the key TCP/IP protocol (1a, 2c, 2d, 2e);
    d. identifying each key TCP/IP protocol's place within the OSI model (1a, 2c, 2d, 2e).

7. Demonstrate an understanding of common network management tasks by
    a. performing account administration (1a, 1b, 2c, 2d, 2e);
    b. performing routine maintenance (1a, 1b, 2c, 2d, 2e);
    c. creating backups and restores (1a, 1b, 2c, 2d, 2e);
    d. performing troubleshooting (1a, 1b, 2c, 2d, 2e);
    e. configuring a node for a TCP/IP network (1a, 1b, 2c, 2d, 2e);
    f. identifying convergence technologies that combine multiple types of communication services into a single network (1a, 2c, 2d, 2e).
8. Demonstrate an understanding of basic network security concepts by
    a. explaining the importance of confidentiality, integrity, and availability (1a, 1b, 2c, 2d, 2e);
    b. describing basic threats to network security as well as basic techniques to combat those threats (1a, 1b, 2c, 2d, 2e).

ITNW 1436 - Cloud Deployment & Infrastructure Manage

General

Course Key
14917

Course Rubric
ITNW

Course Number
1436

Course Title
Cloud Deployment & Infrastructure Management

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Focus on Cloud infrastructure, deployment, security models, and key considerations in migrating to Cloud computing. Includes the technologies and processes required to build on-premise and Cloud environments, including computation, storage, networking, virtualization, business continuity, security, and management. Recommended Prerequisite(s): ITNW 1309

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#take itnw-1309
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITNW 1309

Course Learning Outcomes

Course Learning Outcomes
Assess and plan migration from on-premise to Cloud solution environment; identify methods and tools to maintain security and protect data; differentiate between the various storage, computing, and networking options; identify deployment and management options; deploy available services for scalability, reliability and high availability; use Cloud monitoring and auto-scaling services to scale infrastructure up and down.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Assess and plan migration from on-premise to Cloud solution environment (1a, 1b, 2c).
2. Identify methods and tools to maintain security and protect data adoption (1a, 1b, 2c).
3. Differentiate between the various storage, computing, and networking options; identify deployment and management options (1a, 1b, 2c).
4. Deploy available services for scalability, reliability and high availability (1a, 1b, 2c).

ITNW 1454 - Implementing and Supporting Servers

General

Course Key
1408

Course Rubric
ITNW

Course Number
1454

Course Title
Implementing and Supporting Servers

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment. Recommended Prerequisite: ITNW-1408

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take itnw-1408;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITNW 1408

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Configure peripherals and devices; set up servers; configure directory replication; manage licensing; create and manage system policies and profiles; administer remote servers and disk resources; create and share resources; implement fault-tolerance; configure servers for interoperability; install and configure Remote Access Service (RAS); and identify and monitor performance bottlenecks and resolve configuration problems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of a server operating system by
    a. discussing similarities and differences in a server operating system with a client operating system (1a, 1b, 1c, 2a, 2d, 2e);
    b. listing common current server operating systems (1a, 1b, 1c, 2a, 2d, 2e);
    c. describing user accounts, administrative accounts, and group membership (1a, 1b, 1c, 2a, 2d, 2e).
2. Demonstrate installation and management of a server operating system by
    a. installing a current server operating system in a networked environment (1a, 1b, 1c, 2a, 2d, 2e);
    b. creating user accounts (1a, 1b, 1c, 2a, 2d, 2e);
    c. managing user accounts (1a, 1b, 1c, 2a, 2d, 2e);
    d. identifying how groups function and their characteristics (1a, 1b, 1c, 2a, 2d, 2e);
    e. implementing network services such as DHCP and DNS (1a, 1b, 1c, 2a, 2d, 2e);
    f. configuring network print services (1a, 1b, 1c, 2a, 2d, 2e);
    g. describing backup procedures (1a, 1b, 1c, 2a, 2d, 2e);
    h. identifying good disk storage management procedures (1a, 1b, 1c, 2a, 2d, 2e);
    i. demonstrating file sharing (1a, 1b, 1c, 2a, 2d, 2e);
    j. describing routine administrative tasks (1a, 1b, 1c, 2a, 2d, 2e).
3. Demonstrate common troubleshooting by
    a. starting and stopping task (1a, 1b, 1c, 2a, 2d, 2e);
    b. starting and stopping print services (1a, 1b, 1c, 2a, 2d, 2e);
    c. demonstrating changing file access permissions (1a, 1b, 1c, 2a, 2d, 2e).

ITNW 2427 - Advanced Cloud Concepts

General

Course Key
14911

Course Rubric
ITNW

Course Number
2427

Course Title
Advanced Cloud Concepts

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Focus on enterprise Cloud architecture, with advanced topics including multi-Cloud platforms inclusive of computing, networking, storage, monitoring and database. Recommended Prerequisite: ITNW-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take ITNW-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITNW 1436

Course Learning Outcomes

Course Learning Outcomes
Design architectures to decouple infrastructure and reduce interdependencies; automate the deployment of Cloud resources; use Cloud provider tools to evaluate Cloud resource-based cost models and apply best practices to design for cost optimization; define and distinguish between Cloud infrastructure mechanisms such as virtual servers, Cloud-based security, storage, usage and monitoring; identify and differentiate between each of the multi-Cloud platform models.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Design architectures to decouple infrastructure and reduce interdependencies (1a, 1b, 2c).
2. Automate the deployment of Cloud resources (1a, 1b, 2c).
3. Use Cloud provider tools to evaluate Cloud resource-based cost models and apply best practices to design for cost optimization (1a, 1b, 2c).
4. Define and distinguish between Cloud infrastructure mechanisms such as virtual servers (1a, 1b, 2c).

ITSC 1416 - Linux Installation and Configuration

General

Course Key
14912

Course Rubric
ITSC

Course Number
1416

Course Title
Linux Installation and Configuration

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Introduction to Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux. Recommended Pre-requisite: CPMT-1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#take CPMT-1403
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CPMT 1403

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Install, administer, and manage a Linux system; demonstrate proficiency with Linux utilities, commands, and applications; identify and resolve security-based issues; and integrate a Linux system into an existing network.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the history of Linux (1a, 1b, 2a, 2c, 2d, 2e).
2. Identify the common distributions of Linux (1a, 1b, 2a, 2c, 2d, 2e).
3. Install, administer, and manage a Linux system (1a, 1b, 2a, 2c, 2d, 2e).
4. Organize and manage files within the Linux file system from a terminal window (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate proficiency with Linux utilities, commands, and applications from a terminal window (1a, 1b, 2a, 2c, 2d, 2e).
6. Combine Linux tools using features such as filters, pipes, redirection, and regular expressions from a terminal window (1a, 1b, 2a, 2c, 2d, 2e).
7. Identify and resolve security-based issues (1a, 1b, 2a, 2c, 2d, 2e).
8. Integrate a Linux system into a mixed (Windows and Linux) network using a virtual network environment (1a, 1b, 2a, 2c, 2d, 2e).
9. Write shell scripts (1a, 1b, 2a, 2c, 2d, 2e).
10. Create and add disk storage working in a virtual environment (1a, 1b, 2a, 2c, 2d, 2e).
11. Select the appropriate tool and edit text and configuration files (1a, 1b, 2a, 2c, 2d, 2e).

ITSC 2346 - Computer Center Management

General

Course Key
12144

Course Rubric
ITSC

Course Number
2346

Course Title
Computer Center Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Assessment of needs of a computing center and general principles of hardware and software acquisition, maintenance, licensing, and improving usage scheduling. Emphasis on interpersonal communication and management skills.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Summarize the process of hardware/software selection and acquisition; describe the categories of software licenses; contrast the options available for software/hardware maintenance; develop a plan for scheduling hardware usage; and determine factors involved in successful workplace personnel interactions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the need of a growing company for new information systems to support their activities by
    a. assessing and/or grading through a project rubric (1a, 1b, 1c, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of information systems concepts, methodologies, and technologies by
    a. describing the basic features of an information system (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. discussing the similarities and differences among different information systems and their features (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. explaining the basic features of an information system (1a, 1b, 1c, 2a, 2c, 2d, 2e).
3. Demonstrate the management of hardware and software acquisitions, licenses, and maintenance agreements in the form of a team project by
    a. identifying the process and steps for implementing a Technology Hardware and Software Copyright Agreement (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. differentiating between licenses and maintenance agreements (1a, 1b, 1c, 2a, 2c, 2d, 2e).

ITSC 2439 - Personal Computer Help Desk Support

General

Course Key
15213

Course Rubric
ITSC

Course Number
2439

Course Title
Personal Computer Help Desk Support

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Diagnose and solve user hardware and software related problems with on-the-job and/or simulated projects.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate rapport with users in problem-solving situations; analyze user problems and lead them through solutions; maintain problem logs; and formulate problem-solving methodologies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of personal computer help desk support concepts, methodologies, and technologies by
    a. describing the various introductory components of end user computing (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. discussing the similarities and aspects of computer user support (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. demonstrating the proper customer service skills for user support, given a scenario (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. explaining the common computer system installation aspects (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. comparing policies and procedures used with several different help desk systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. identifying the needs and methods in training computer users (1a, 1b, 1c, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of personal computer help desk structures and procedures by
    a. identifying the process and steps in problem-solving situations with computer users (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. analyzing computer user problems and guiding them through to the appropriate solution (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. managing and maintaining problem logs (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. formulating problem-solving methodologies (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. evaluating end computer user documentation and problem logs (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. describing the major types of computer facilities and management and what a system administrator needs to know about the operating system design (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. identifying the different ways help desks are structured to provide support (1a, 1b, 1c, 2a, 2c, 2d, 2e).

ITSE 1303 - Introduction to MySQL

General

Course Key
14914

Course Rubric
ITSE

Course Number
1303

Course Title
Introduction to MySQL

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to fundamentals of SQL and relational databases. Recommended Prerequisite: CPMT-1403

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#take cpmt-1403
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CPMT 1403

Course Learning Outcomes

Course Learning Outcomes
Identify database terminology and concepts; plan, define, and design a database; design and generate tables; devise and process queries; install and start the MySQL server; and troubleshoot syntax. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify database terminology and concepts (1a, 1b, 2c).
2. Plan, define, and design a database (1a, 1b, 2c).
3. Design and generate tables (1a, 1b, 2c).
4. Devise and process queries (1a, 1b, 2c).

ITSE 1333 - Mobile Applications Development

General

Course Key
14915

Course Rubric
ITSE

Course Number
1333

Course Title
Mobile Applications Development

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) An overview of different mobile platforms and their development environments. Recommended Prerequisite(s): COSC-1436 or ITSE-1479

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take COSC-1436 or ITSE-1479
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1436 or ITSE 1479

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design, write, and test small interactive programs for mobile platforms. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the design process in developing a mobile application by
    a. describing current design tools (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. defining the various mobile architectures (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. defining appropriate user interfaces (1a, 1b, 2a, 2b, 2c, 2d, 2e).
2. Develop applications for mobile devices by
    a. using current development tools (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. creating a mobile user interface (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. writing code using proper programming logic (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    d. implementing graphics, audio, or video (1a, 1b, 2a, 2b, 2c, 2d, 2e).
3. Publish a mobile application by
    a. registering with the Play Stores (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. testing the release version of the application (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. packaging and deploying the application (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    d. developing marketing documents for the Play Stores (1a, 1b, 2a, 2b, 2c, 2d, 2e).

ITSE 1411 - Beginning Web Programming

General

Course Key
8058

Course Rubric
ITSE

Course Number
1411

Course Title
Beginning Web Programming

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Skills development in web page programming including mark-up and scripting languages. Recommended Prerequisite: COSC 1301.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cosc-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate the use of markup and scripting languages; and create interactive web pages. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe basic internet concepts and terminology by
    a. describing the internet infrastructure (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining how the internet developed (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing how the internet functions (1a, 1b, 2a, 2c, 2d, 2e);
    d. defining internet and web terms (1a, 1b, 2a, 2c, 2d, 2e);
    e. describing web page design techniques (1a, 1b, 2a, 2c, 2d, 2e).
2. Develop web pages and sites using current techniques by
    a. describing common web page formats (1a, 1b, 2a, 2c, 2d, 2e);
    b. creating web pages using the current standards of markup language (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing web site structures (1a, 1b, 2a, 2c, 2d, 2e);
    d. creating multipage web sites (1a, 1b, 2a, 2c, 2d, 2e);
    e. creating layouts using cascading style sheets (1a, 1b, 2a, 2c, 2d, 2e);
    f. creating graphical interfaces (1a, 1b, 2a, 2c, 2d, 2e).
3. Create interactive web pages and sites using current techniques by
    a. creating forms (1a, 1b, 2a, 2c, 2d, 2e);
    b. designing content rich web sites (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the use of dynamic markup language (1a, 1b, 2a, 2c, 2d, 2e);
    d. developing web page programs with a scripting programming language (1a, 1b, 2a, 2c, 2d, 2e);
    e. describing problem solving techniques in correcting errors (1a, 1b, 2a, 2c, 2d, 2e).

ITSE 1430 - Introduction to C# Programming

General

Course Key
8835

Course Rubric
ITSE

Course Number
1430

Course Title
Introduction to C# Programming

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). A study of C# syntax including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling. Recommended Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take COSC-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Implement C# classes, objects, and class relationships; develop, write, and test programs applying Object Oriented principles using C#; create member functions, and demonstrate exception handling. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate problem solving skills in C# using a console application, using a Windows application, using a Windows Presentation Foundation (WPF), and using a web application (ASP.NET) by
    a. translating written material into a computer solution (1a, 1b, 2a, 2c, 2d, 2e);
    b. developing a program in C# for a console application, for a Windows application, for a WPF application, and for a web application (1a, 1b, 2a, 2c, 2d, 2e);
    c. using debugging techniques to solve errors (1a, 1b, 2a, 2c, 2d, 2e);
    d. using C# methods in programming (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating the use of C# control structures (1a, 1b, 2a, 2c, 2d, 2e);
    f. demonstrating the use of C# comments (1c, 2b);
    g. using C# data types such as short, int, long, float, double, decimal, char, string, datetime, void, and bool (1a, 1b, 2a, 2c, 2d, 2e);
    h. demonstrating the use of constants in C# (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of object oriented programming in C# by
    a. developing a class in C# (1a, 1b, 2a, 2c, 2d, 2e);
    b. using Windows Form object in C# such as TextBox, Label, Button, ComboBox, RadioButton, CheckBox, and others (1a, 1b, 2a, 2c, 2d, 2e);
    c. using WPF objects in C# such as TextBox, Label, Button, and others (1a, 1b, 2a, 2c, 2d, 2e);
    d. using web form objects in C# such as TextBox, Label, Button, DropDownList, RadioButtonList, CheckBoxList and others (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of arrays and collections in C# by
    a. using a one dimensional array in a C# program (1a, 1b, 2a, 2c, 2d, 2e);
    b. developing a rectangular array in a C# program (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the use of a jagged array in a C# program (1a, 1b, 2a, 2c, 2d, 2e);
    d. demonstrating the use of a collection such as a List, SortedList, Queue, or Stack in a C# program (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate database programming using C# by
    a. using data sources in a C# program (1a, 1b, 2a, 2c, 2d, 2e);
    b. using a DataGridView or a Details view in a C# program (1a, 1b, 2a, 2c, 2d, 2e);
    c. using a bound control and parameterized queries in a C# program (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of reading and writing text and XML files by
    a. writing a C# program to read a text or XML file (1a, 1b, 2a, 2c, 2d, 2e);

b. writing a C# program to write a text or XML file (1a, 1b, 2a, 2c, 2d, 2e).

ITSE 1450 - System Analysis and Design

General

Course Key
7293

Course Rubric
ITSE

Course Number
1450

Course Title
System Analysis and Design

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools. Recommended Prerequisite: COSC 1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cosc-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use system design tools; identify phases of the system design life cycle; develop a prototype; compare and contrast project management tools; and develop documentation for the system life cycle. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify phases of the system design life cycle by
    a. describing the system development life cycle (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing the phases of the system development life cycle (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining fact finding techniques (1a, 1b, 2a, 2c, 2d, 2e);
    d. identifying the main components of an information system (1a, 1b, 2a, 2c, 2d, 2e);
    e. describing the steps in a system project (1a, 1b, 2a, 2c, 2d, 2e);
    f. explaining the usages of feasibility studies (1a, 1b, 2a, 2c, 2d, 2e);
    g. describing data and process modeling (1a, 1b, 2a, 2c, 2d, 2e);
    h. evaluating alternative solutions (1a, 1b, 2a, 2c, 2d, 2e).
2. Use system design tools by
    a. discussing input and output design issues (1a, 1b, 2a, 2c, 2d, 2e);
    b. listing specific guidelines for user interface design (1a, 1b, 2a, 2c, 2d, 2e);
    c. designing source document controls (1a, 1b, 2a, 2c, 2d, 2e);
    d. describing security and control issues (1a, 1b, 2a, 2c, 2d, 2e);
    e. using methodologies to describe the data relationships (1a, 1b, 2a, 2c, 2d, 2e);
    f. developing a plan for physical storage and management of data (1a, 1b, 2a, 2c, 2d, 2e);
    g. determining which system architecture is best to implement in a given scenario (1a, 1b, 2a, 2c, 2d, 2e);
    h. describing the processes in selecting a system architecture (1a, 1b, 2a, 2c, 2d, 2e).
3. Develop a prototype by
    a. explaining prototyping methods (1a, 1b, 2a, 2c, 2d, 2e);
    b. using case tool(s) to develop a system or design a prototype (1a, 1b, 2a, 2c, 2d, 2e);
    c. evaluating prototyping tools (1a, 1b, 2a, 2c, 2d, 2e);
    d. describing the application development process (1a, 1b, 2a, 2c, 2d, 2e);
    e. explaining the importance of software quality assurance (1a, 1b, 2a, 2c, 2d, 2e).
4. Compare and contrast project management tools by
    a. explaining project planning, scheduling, monitoring, and reporting (1a, 1b, 2a, 2c, 2d, 2e);
    b. using the project development steps (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing popular scheduling tools (1a, 1b, 2a, 2c, 2d, 2e);
    d. discussing key project management concepts (1a, 1b, 2a, 2c, 2d, 2e);

e. evaluating popular project management software (1a, 1b, 2a, 2c, 2d, 2e).

5. Develop documentation for the system life cycle by

   a. discussing good system development documentation techniques (1a, 1b, 2a, 2c, 2d, 2e);

   b. developing effective documentation methods to use during system development (1a, 1b, 2a, 2c, 2d, 2e);

   c. identifying techniques for developing good user documentation (1a, 1b, 2a, 2c, 2d, 2e).

ITSE 1479 - Introduction to Scripting Languages

General

Course Key
15662

Course Rubric
ITSE

Course Number
1479

Course Title
Introduction to Scripting Languages

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Technical Local Need

Description
(4-3-2) Introduction to scripting languages including basic data types, control structures, regular expressions, input/output, and textual analysis. Topics may adapt to changes in industry practices. Recommended Prerequisites: BCIS-1305 or COSC-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take BCIS-1305 or COSC-1301
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Recommended Prerequisite(s): BCIS 1305 or COSC 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design programming solutions using scripting languages; write scripts; test and debug scripts; design solutions to real-world problems using a scripting language. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Use software development methodology in program problem solving by

   a. demonstrating competency in algorithm development (1a, 1b, 2c);

   b. writing programs using the techniques of structured programming (1a, 1b, 2a, 2c);

   c. writing programs using object-oriented techniques in multiple scripting environments, both client-side and server-side environments (1a, 1b, 2a, 2c).

2. Write program code using the scripting languages by

   a. describing the appropriate domain for a network-based problem (1b, 1b, 2a, 2c, 2d, 2e);

   b. defining a solution with the chosen problem domain (1b, 2c, 2d, 2e);

   c. writing programs using knowledge of variable data types and control structure concepts (1a, 1b, 2a, 2c);

   d. creating programs using methods that pass data between methods (1a, 1b, 2a, 2c);

   e. writing programs using arrays and lists (1a, 1b, 2a, 2c);

   f. writing code involving text and binary files (1a, 1b, 2a, 2c);

   g. implementing and using available libraries within the problem domain (1a, 1b, 2a, 2c, 2d, 2e);

   h. creating programs involving classes and the mechanisms associated with classes and objects (1a, 1b, 2a, 2c);

   i. demonstrating the idea of exception handling (1a, 1b, 2a, 2c);

   j. creating basic graphic user interfaces using the available tools within a problem domain (1a, 1b, 2a, 2c).

ITSE 2302 - Intermediate Web Programming

General

Course Key
14910

Course Rubric
ITSE

Course Number
2302

Course Title
Intermediate Web Programming

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Server-side and client-side techniques for Web development. Recommended Prerequisite: Competency in basic Web programming or departmental approval.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): Competency in basic Web programming or departmental approval

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Create and use client-side and server-side scripts to design and implement dynamic websites. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of web page and site construction using scripting techniques by

   a. developing a script (1a, 1b, 2a, 2c, 2d, 2e);

   b. declaring variables and data types (1a, 1b, 2a, 2c, 2d, 2e);

   c. using debugging techniques to solve errors (1a, 1b, 2a, 2c, 2d, 2e);

   d. writing functions (1a, 1b, 2a, 2c, 2d, 2e);

   e. demonstrating the use of control structures (1a, 1b, 2a, 2c, 2d, 2e).

2. Demonstrate an understanding of the object model by

   a. describing objects and the object model (1a, 1b, 2a, 2c, 2d, 2e);

   b. creating document objects (1a, 1b, 2a, 2c, 2d, 2e);

   c. applying event handlers to objects (1a, 1b, 2a, 2c, 2d, 2e);

   d. performing client side form validation (1a, 1b, 2a, 2c, 2d, 2e).

3. Demonstrate an understanding of dynamic content by

   a. defining the methods and properties of nodes (1a, 1b, 2a, 2c, 2d, 2e);

   b. applying node properties to create dynamic content (1a, 1b, 2a, 2c, 2d, 2e);

   c. manipulating the browser window (1a, 1b, 2a, 2c, 2d, 2e);

   d. creating dynamic menus (1a, 1b, 2a, 2c, 2d, 2e);

   e. creating interactive forms (1a, 1b, 2a, 2c, 2d, 2e).

ITSE 2310 - iOS Application Programming

General

Course Key
14909

Course Rubric
ITSE

Course Number
2310

Course Title
iOS Application Programming

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Course explores developing applications for iOS devices. Will include the current iOS programming language, use of the iOS SDK environment, and current programming issues in the iOS environment. Recommended Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE COSC-1436
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Complete the procedures to become a registered Apple iOS developer. Design interfaces for iOS applications. Produce concept documentation. Create iOS applications in native Software Development Kit (SDK); and deploy applications for various iOS devices. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of iOS development by
    a. explaining the iOS SDK (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. defining the user interface (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. describing the technologies used in creating iOS apps (1a, 1b, 2a, 2b, 2c, 2d, 2e).
2. Develop iOS apps for iPhone/iPad by
    a. creating an iOS app using the current tools (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. creating an iOS app using Apple's current tools (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. developing a user interface with touch (1a, 1b, 2a, 2b, 2c, 2d, 2e).
3. Deploy iOS apps by
    a. registering the iOS application (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. submitting the iOS application (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. developing promotional materials for the iOS application (1a, 1b, 2a, 2b, 2c, 2d, 2e).

ITSE 2409 - Database Programming

General

Course Key
13625

Course Rubric
ITSE

Course Number
2409

Course Title
Database Programming

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Database development using database programming techniques emphasizing database structures, modeling, and database access. Recommended Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE COSC-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop database applications using a structured query language; create queries and reports from database tables; implement data integrity; optimize query performance; create and maintain indexes; and create appropriate documentation. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Develop database applications using a structured query language by
    a. organizing data for the design of a database (1a, 1b, 2a, 2c, 2d, 2e);
    b. designing relational databases and their components (1a, 1b, 2a, 2c, 2d, 2e);
    c. developing database objects using standard accepted practices (1a, 1b, 2a, 2c, 2d, 2e);
    d. developing databases conforming to normalization and database integrity rules (1a, 1b, 2a, 2c, 2d, 2e);
    e. grouping database content (1a, 1b, 2a, 2c, 2d, 2e).
2. Create queries and reports from database tables using a structured query language by
    a. developing structured query language queries (1a, 1b, 2a, 2c, 2d, 2e);
    b. producing optimal query performance (1a, 1b, 2a, 2c, 2d, 2e);
    c. creating and maintain indexes (1a, 1b, 2a, 2c, 2d, 2e);
    d. changing data from a database to a web document (1a, 1b, 2a, 2c, 2d, 2e);
    e. integrating the database with other programs (1a, 1b, 2a, 2c, 2d, 2e);
    f. designing logical expressions for advanced queries (1a, 1b, 2a, 2c, 2d, 2e);
    g. developing multi-table queries (1a, 1b, 2a, 2c, 2d, 2e).
3. Create appropriate documentation by
    a. developing forms and reports (1a, 1b, 2a, 2c, 2d, 2e);
    b. producing custom forms and reports (1a, 1b, 2a, 2c, 2d, 2e);
    c. creating user interfaces to database (1a, 1b, 2a, 2c, 2d, 2e);
    d. developing exception handling (1a, 1b, 2a, 2c, 2d, 2e);
    e. creating data and database security (1a, 1b, 2a, 2c, 2d, 2e).

ITSE 2417 - Java Programming

General

Course Key
1218

Course Rubric
ITSE

Course Number
2417

Course Title
Java Programming

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Java programming for applications and web applets. Recommended Prerequisite: COSC-1436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take cosc-1436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): COSC 1436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Implement Java classes, objects, and class relationships; design, develop, test, and document programs applying object-oriented principles using Java; create member functions; and demonstrate exception handling. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Use software development methodology in program problem solving by
    a. demonstrating competency in algorithm development (1a, 1b, 2c);
    b. designing program logic with pseudocode or UML class and object diagrams (1a, 1b, 2a, 2c);
    c. writing programs using the techniques of structured programming (1a, 1b, 2a, 2c);
    d. writing programs using object orientated techniques of the UML (1a, 1b, 2a, 2c).
2. Write program code using the Java language by
    a. writing programs using knowledge of variable data types and control structure concepts (1a, 1b, 2a, 2c);
    b. creating programs using methods that pass data between methods (1a, 1b, 2a, 2c);
    c. writing programs using arrays and lists (1a, 1b, 2a, 2c);
    d. writing code involving text and binary files (1a, 1b, 2a, 2c);
    e. creating programs involving classes and the mechanisms associated with classes and objects (1a, 1b, 2a, 2c);
    f. writing programs involving inheritance and polymorphism (1a, 1b, 2a, 2c);
    g. demonstrating the idea of exception handling (1a, 1b, 2a, 2c);
    h. writing programs using the concept of recursion (1a, 1b, 2a, 2c);
    i. creating basic graphic user interfaces (applications and applets) using the AWT and Swing classes (1a, 1b, 2a, 2c);
    j. writing event driven programs for GUI applications (1a, 1b, 2a, 2c);
    k. demonstrating advanced Java techniques by using the Java Collections Framework (1a, 1b, 2a, 2c).
3. Demonstrate the ability to run, test, and debug programs by
    a. creating programs using problem solving skills to design, code, and test programs (1a, 2a, 2b, 2c);
    b. running programs (1a, 2a, 2c);
    c. using test data when running programs (1a, 2a, 2c);
    d. discovering debug techniques to use when needed to correct program errors (1a, 2a, 2c);
    e. explaining the importance of validating output (1a, 2a, 2c).

ITSW 1407 - Introduction to Database

General

Course Key
1267

Course Rubric
ITSW

Course Number
1407

Course Title
Introduction to Database

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Introduction to relational and non-relational database theory and the practical applications of a contemporary database. Topics may adapt to changes in industry practices. Recommended Prerequisite: BCIS-1305 or COSC-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take bcis-1305 or cosc-1301;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Recommended Prerequisite(s): BCIS 1305 or COSC 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and differentiate the application of relational and nonrelational databases; identify database terminology and concepts; plan, define, and design a database; design and generate tables, forms, and reports; and design and process queries. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the fundamental concepts needed to plan for, design, and create a database using an appropriate relational database software application by
    a. organizing data for the design of the database (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. creating tables to store the needed data (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. modifying table designs to accommodate data (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. setting field data types and formatting properties (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. establishing primary and foreign key fields (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. placing data into tables using a variety of methods (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. editing stored data (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    h. defining relationships needed in the database (1a, 1b, 1c, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of the processes needed to mine data in the database table by
    a. creating select queries using various selection criteria, multiple table queries, action queries, and advanced queries (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. running selected queries using various selection criteria, multiple table queries, action queries, and advanced queries (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. filtering data with prescribed parameters (1a, 1b, 1c, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of the use and development of forms and reports by
    a. creating automated and custom forms using form design tools (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. creating automated and custom forms using report design tools (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. applying special formatting requirements to forms and reports (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. adding enhancement features to forms and reports that may include combo boxes, calculated controls, aggregate calculations, sorting, and grouping (1a, 1b, 1c, 2a, 2c, 2d, 2e).
4. Demonstrate an understanding of the use and implementations of a graphical user interface by
    a. automating tasks for the interface using macros (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. creating a switchboard (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. modifying a switchboard (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. adding command buttons to forms (1a, 1b, 1c, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of common database options for managing and securing a database by
    a. establishing a database password (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. splitting a database (1a, 1b, 1c, 2a, 2c, 2d, 2e);

c. using the linked table manager (1a, 1b, 1c, 2a, 2c, 2d, 2e);

d. setting database startup options (1a, 1b, 1c, 2a, 2c, 2d, 2e).

ITSW 2334 - Advanced Spreadsheets

General

Course Key
16495

Course Rubric
ITSW

Course Number
2334

Course Title
Advanced Spreadsheets

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Advanced techniques for developing and modifying spreadsheets. Includes macros and data analysis functions. Empasis will be on accounting and financial applications. Required Prerequisites: ACNT-1313 BCIS-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): ACNT-1313 BCIS-1305

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

1. Create and design macros. (C8, C19, F9, F12)
2. Use data analysis features. (C8, C18, C19, F9, F10, F12)
3. Develop solutions using linked worksheets. (C6, C8, C19, F9)
4. Create spreadsheets to organize, calculate, and summarize quantitative data using formulas, functions, pivot tables, and other tools. (C2, C6, C8, C18, C19, F3, F4, F9)
5. Create bank and credit card reconciliations using Excel functions. (C2, C6, C8, C19, F3, F4, F9)
6. Create advanced pivot tables and charts. (C6, C8, C19, F9) 7. Automate importing and cleaning datasets. (C8, C19, F9)
7. Use Power Query and manage multiple queries (C5, C6, C8, C19, F9)
8. Demonstrate practical experience working with accounting information through project-based learning including both individual and team settings. (C2, C6, C7, C8, C9, C18, C19, F3, F4, F9, F10, F12

ITSY 1300 - Fundamentals of Information Security

General

Course Key
10577

Course Rubric
ITSY

Course Number
1300

Course Title
Fundamentals of Information Security

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) An introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Outline best practices for the information security goals of confidentiality, integrity and availability; explain ethical practices; define vocabulary/terminology related to information security; explain the importance of planning and administrative controls; identify security threats, vulnerabilities, and countermeasures; and identify procedures for security risk management. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of best practices for the information security goals of confidentiality, integrity, and availability by
    a. contrasting symmetric encryption and asymmetric (public key) encryption (1a, 1b, 2c, 2d, 2e);
    b. comparing current encryption algorithms (1a, 1b, 2c, 2d, 2e);
    c. explaining security awareness programs that enable end users to understand their part in information security (1a, 1b, 2b, 2c, 2d, 2e);
    d. explaining countermeasure best practices (1a, 1b, 2c, 2d, 2e);
    e. explaining issues related to access control (1a, 1b, 2c, 2d, 2e);
    f. evaluating software tools to help manage information security (1a, 1b, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate an understanding of ethical practices by
    a. explaining legal requirements associated with information security, including privacy and computer forensics (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating basic computer forensic processes (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate an understanding of vocabulary/terminology related to information security by
    a. comparing confidentiality, integrity, availability, authentication, and nonrepudiation (1a, 1b, 2c, 2d, 2e);
    b. explaining the operational model of computer security (1a, 1b, 2c, 2d, 2e);
    c. explaining how various security technologies and techniques fit within the operational model (1a, 1b, 2c, 2d, 2e);
    d. explaining vocabulary related to encryption and public key infrastructure (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of the importance of planning and administrative controls by
    a. explaining the impact of IT and software engineering project management and change management on information security (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating the ability to explain the importance of and to apply the concepts of least privilege and need to know in information security (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining the importance of disaster recovery and business continuity plans (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    d. identifying best practices for disaster recovery and business continuity plans (1a, 1b, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate an understanding of security threats, vulnerabilities, and countermeasures by
    a. comparing vulnerabilities and threats (1a, 1b, 2c, 2d, 2e);
    b. explaining common networking vulnerabilities, including wired and wireless networks (1a, 1b, 2c, 2d, 2e);
    c. identifying common malicious, environmental, and physical threats and the countermeasures used to combat them (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    d. identifying unintentional threats and the countermeasures used to combat them (1a, 1b, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate an understanding of procedures for security risk management by
    a. explaining the importance of risk management to information security (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    b. comparing qualitative and quantitative risk assessment (1a, 1b, 2a, 2b, 2c, 2d, 2e);
    c. explaining tools used in risk management (1a, 1b, 2a, 2b, 2c, 2d, 2e).

ITSY 2330 - Intrustion Detection

General

Course Key
15286

Course Rubric
ITSY

Course Number
2330

Course Title
Intrusion Detection

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Computer information systems security monitoring, intrusion detection, and crisis management. Includes alarm management, signature configuration, sensor configuration, and troubleshooting components. Emphasizes identifying, resolving, and documenting network crises and activating the response team. Recommended Prerequisite: ITSY-2400 and ITSY-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ITSY-2400(6427) ITSY-2401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITSY 2400 and ITSY 2401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Build IDS sensors and attach them to the network (hardware and software); install and manage a secure communication link between all sensors and the monitor; install and manage event database(s); analyze an event and trends; install, manage, and interpret syslog servers and system logs; identify legal and policy issues associated with system and network monitoring; and deploy, implement, and test IDS security plan. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe network security implementation strategies and the roles each can play within the security life cycle (1a, 1b, 2a, 2c, 2d, 2e).
2. Identify network security management best practices and strategies for responding when security measures fail (1a, 1b, 2a, 2c, 2d, 2e).
3. Evaluate available resources and trends in network security (1a, 1b, 2a, 2c, 2d, 2e).
4. Analyze how port scanning and fingerprinting are used by hackers (1a, 1b, 2a, 2c, 2d).
5. Identify and remove common types of malware from infected systems (1a, 1b, 2a, 2d, 2e).
6. Perform network traffic analysis and sniffing by using appropriate tools (1a, 2a, 2c, 2d, 2e).
7. Demonstrate an understanding of infrastructure system interoperability (1a, 1b, 2a, 2d, 2e).
8. Perform incident handling by using appropriate methods (1a, 1b, 2a, 2c, 2d, 2e).
9. Compare and contrast defensive technologies (1a, 1b, 2a, 2c, 2d, 2e).

ITSY 2341 - Security Management Practices

General

Course Key
15287

Course Rubric
ITSY

Course Number
2341

Course Title
Security Management Practices

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) In-depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; network security design; and developing and maintaining a security plan. Required Prerequisite: ITSY-1300 Recommended Prerequisites: ITSY-2400 and ITSY-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ITSY-1300;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take itsy-2400 itsy-2401
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ITSY 1300
Recommended Prerequisite(s): ITSY 2400 and ITSY 2401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop a security plan; establish suitable level of protection; determine legal issues; implement network security design; and revise risk analysis and security plan. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of organizational security models by
    a. developing a security plan (1a, 1b, 2a, 2c, 2d, 2e);
    b. establishing suitable level of protection (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining security program components (1a, 1b, 2a, 2c, 2d, 2e);
    d. distinguishing between military and commercial security requirements (1a, 1b, 2a, 2c, 2d, 2e);
    e. explaining security management responsibilities (1a, 1b, 2a, 2c, 2d, 2e);
    f. describing organizational layers of responsibility (1a, 1b, 2a, 2c, 2d, 2e);
    g. distinguishing between administrative, technical, and physical security controls (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of risk management, analysis, and mitigation techniques by
    a. identifying assets and their value (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying vulnerabilities and threats to confidentiality, integrity, and availability of data (1a, 1b, 2a, 2c, 2d, 2e);
    c. distinguishing between risk mitigation, transfer, avoidance, and acceptance (1a, 1b, 2a, 2c, 2d, 2e);
    d. creating quantitative and qualitative risk analyses and cost/benefit analyses (1a, 1b, 2a, 2c, 2d, 2e);
    e. describing administrative, technical, and physical methods to mitigate risks (1a, 1b, 2a, 2c, 2d, 2e);
    f. creating a high level design for network security including firewalls and intrusion detection (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of the legal, regulatory, and ethical environment under which businesses operate by
    a. explaining the complexities of cybercrime (1a, 1b, 2a, 2c, 2d, 2e);
    b. examining intellectual property laws (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing privacy issues (1a, 1b, 2a, 2c, 2d, 2e);
    d. discussing business liability and its ramifications (1a, 1b, 2a, 2c, 2d, 2e);
    e. describing incident response procedures in the context of the legal, regulatory, and ethical environment (1a, 1b, 2a, 2c, 2d, 2e).

4. Demonstrate an understanding of security documentation by
    a. demonstrating the ability to write and maintain a simple security plan (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating the ability to read, analyze, and summarize standards relevant to security management (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the ability to create and document a security baseline for a system component (1a, 1b, 2a, 2c, 2d, 2e);
    d. writing a security guideline document for end users for a current security issue (1a, 1b, 2a, 2c, 2d, 2e);
    e. writing a standard operating procedure document to perform a technical activity (1a, 1b, 2a, 2c, 2d, 2e).

5. Demonstrate an understanding of business continuity and disaster recovery planning by
    a. describing the requirements for business continuity planning (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing a business impact analysis (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the ability to select, develop, and implement disaster recovery and business continuity plans (1a, 1b, 2a, 2c, 2d, 2e);
    d. explaining the major issues concerning data backup and offset facilities (1a, 1b, 2a, 2c, 2d, 2e);
    e. explaining the types of drills and tests to evaluate the effectiveness of the business continuity and disaster recovery plans (1a, 1b, 2a, 2c, 2d, 2e).

ITSY 2342 - Incident Response & Handling

General

Course Key
11026

Course Rubric
ITSY

Course Number
2342

Course Title
Incident Response and Handling

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) In-depth coverage of incident response and incident handling, including identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; and implementing and modifying security measures. Required Prerequisites: ITSY-2400 and ITSY-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ITSY-2400 ITSY-2401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ITSY 2400 and ITSY 2401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify sources of attacks; restore the system to normal operation; identify and prevent security threats; perform a postmortem analysis; and identify computer investigation issues; and identify the roles and responsibility of the incident response team. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify sources of attacks by
    a. comparing the characteristics of internal or external attacks (1a, 1b, 2a, 2c, 2d, 2e).
2. Restore the system to normal operation by
    a. wiping or replacing infected drives (1a, 1b, 2a, 2c, 2d, 2e);
    b. reimaging or installing OS and Applications (1a, 1b, 2a, 2c, 2d, 2e).
3. Identify and prevent security threats by
    a. subscribing to security bulletins (1a, 1b, 2a, 2c, 2d, 2e);
    b. maintaining updated software (1a, 1b, 2a, 2c, 2d, 2e).
4. Perform a postmortem analysis by
    a. using forensics techniques and tools to analyze memory, processes, file systems, network activity, and disks (1a, 1b, 2a, 2c, 2d, 2e).
5. Identify computer investigation issues by
    a. applying best practice forensics techniques such as search and seizure procedures, chain of custody documentation, and maintaining integrity of evidence (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating knowledge of applicable laws and policies (1a, 1b, 2a, 2c, 2d, 2e);
    c. considering technical, legal, and business impact issues of a security incident (1a, 1b, 2a, 2c, 2d, 2e).
6. Identify the roles and responsibility of the incident response team by
    a. planning the organization, responsibilities, management, communications, and training of members of an incident response team (1a, 1b, 2a, 2c, 2d, 2e);
    b. create an Incident Response Plan (1a, 1b, 2a, 2c, 2d, 2e);
    c. compare and contrast the Incident Response Plan with the Disaster Recovery Plan and the Business Continuity Plan (1a, 1b, 2a, 2c, 2d, 2e).

ITSY 2372 - Ethical Hacking

General

Course Key
14945

Course Rubric	Course Number	Course Title
ITSY	2372	Ethical Hacking

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Technical Local Need

Description
(3-2-3) Course provides an in-depth coverage of ethical hacking practices, including an understanding of the landscape, key terms, and concepts that a security professional needs to know about hackers and computer criminals. Emphasis is on the technical aspects of ethical hacking and how to be proactive to hacking attempts with defensive countermeasures. Required Prerequisite: ITSY-1300

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequiste/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ITSY-1300;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ITSY 1300

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate the ethical hacking process, identify attacks and malware, and implement defensive countermeasures. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate baseline technical competence in areas fundamental to security and ethical hacking by
    a. installing Linux and Windows virtual machines and configuring networking for an operating system in a virtual environment (1a, 1b, 2a, 2c, 2d, 2e);
    b. utilizing the Linux command line to perform basic directory navigation and file operations (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating an understanding of basic networking, the TCP/IP protocol, firewalls, intrusion detection systems, and network packet analysis (1a, 1b, 2a, 2c, 2d, 2e);
    d. demonstrating a basic understanding of cryptography, including symmetric and asymmetric encryption, hashing, the PKI, password cracking, and cryptanalysis (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of the typical stages in the hacking or ethical hacking process by
    a. explaining and demonstrating the major activities, tools, and techniques used in the footprinting stage (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining and demonstrating the major activities, tools, and techniques used in the scanning stage (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining and demonstrating the major activities, tools, and techniques used in the enumeration stage (1a, 1b, 2a, 2c, 2d, 2e);
    d. explaining and demonstrating the major activities, tools, and techniques used in the hacking stage (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of the different types of network attacks by
    a. comparing, contrasting, and using the Internet to research documented instances of wireless attacks (1a, 1b, 2a, 2c, 2d, 2e);
    b. comparing, contrasting, and using the Internet to research documented instances of web and database attacks (1a, 1b, 2a, 2c, 2d, 2e);
    c. comparing, contrasting, and using the Internet to research documented instances of session hijacking (1a, 1b, 2a, 2c, 2d, 2e);
    d. comparing, contrasting, and using the Internet to research documented instances of denial of service (1a, 1b, 2a, 2c, 2d, 2e);
    e. comparing, contrasting, and using the Internet to research documented instances of social engineering (1a, 1b, 2a, 2c, 2d, 2e);
    f. comparing, contrasting, and using the Internet to research documented instances of intellectual property theft (1a, 1b, 2a, 2c, 2d, 2e);
    g. comparing, contrasting, and using the Internet to research documented instances of hacking for financial gain (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate an understanding of the different types of malware by
    a. comparing, contrasting, and using the Internet to research documented instances of viruses (1a, 1b, 2a, 2c, 2d, 2e);
    b. comparing, contrasting, and using the Internet to research documented instances of worms (1a, 1b, 2a, 2c, 2d, 2e);
    c. comparing, contrasting, and using the Internet to research documented instances of Trojans (1a, 1b, 2a, 2c, 2d, 2e);
    d. comparing, contrasting, and using the Internet to research documented instances of backdoors (1a, 1b, 2a, 2c, 2d, 2e);
    e. comparing, contrasting, and using the Internet to research documented instances of keystroke loggers (1a, 1b, 2a, 2c, 2d, 2e);
    f. comparing, contrasting, and using the Internet to research documented instances of spyware (1a, 1b, 2a, 2c, 2d, 2e);
    g. comparing, contrasting, and using the Internet to research documented instances of adware (1a, 1b, 2a, 2c, 2d, 2e);
    h. comparing, contrasting, and using the Internet to research documented instances of scareware (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of defensive techniques by
    a. installing a firewall such as iptables or pfSense, configuring firewall rules, testing the firewall rules with fabricated packets, and analyzing firewall logs (1a, 1b, 2a, 2c, 2d, 2e);
    b. installing an IDS such as Snort, configuring the detection rules, testing the intrusion detection system with fabricated packets, and analyzing the IDS logs (1a, 1b, 2a, 2c, 2d, 2e);
    c. configuring network packet capturing and analyzing collected packets for evidence of malware (1a, 1b, 2a, 2c, 2d, 2e).

ITSY 2400 - Operating System Security

General

Course Key
15282

Course Rubric	Course Number	Course Title
ITSY	2400	Operating System Security

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Safeguard operating systems by demonstrating support skills and designing and implementing security processes. Identify security threats and monitor security implementations. Use best practices to configure operating systems to industry security standards. Recommended Prerequisite: ITSY-1300.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take itsy-1300;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITSY 1300

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify network security risks, security design, and monitoring solutions; identify sources of computer threats, evaluate potential practices, tools, and technologies to protect individual network systems; establish and sustain an operating system security plan utilizing systems and application security tools; implement procedures to secure and monitor audit logs and set system administrator alerts; and develop an organizational operating system security plan that provides for periodic reviews of security policies, procedures, authorized users list, and software update patches. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of operating system hardening and vulnerability testing by
    a. configuring the operating system to make it less vulnerable to attack (1a, 1b, 2a, 2c, 2d, 2e);
    b. establishing a security baseline (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the ability to design and implement a plan to apply patches and upgrades (1a, 1b, 2a, 2c, 2d, 2e);
    d. using local and remote tools to test the operating system and its services for vulnerabilities (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating the ability to design and implement a file/folder backup and restore methodology (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of network operating system security by
    a. configuring TCP/IP networking (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating the ability to capture and analyze network packets (1a, 1b, 2a, 2c, 2d, 2e);
    c. configuring a basic firewall using port and protocol filtering (1a, 1b, 2a, 2c, 2d, 2e);
    d. configuring web browser security (1a, 1b, 2a, 2c, 2d, 2e);
    e. explaining the role of the Public Key Infrastructure and certificates in network security (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of operating system authentication mechanisms by
    a. explaining the purpose and importance of authentication (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing local authentication mechanisms (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing remote authentication mechanisms (1a, 1b, 2a, 2c, 2d, 2e);
    d. demonstrating the ability to configure and monitor user accounts and password policies (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating the ability to monitor and analyze authentication events (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate an understanding of file systems and their confidentiality and access control mechanisms by
    a. explaining the main features and capabilities of a file system (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing file system support for encryption (1a, 1b, 2a, 2c, 2d, 2e);
    c. implementing file system encryption (1a, 1b, 2a, 2c, 2d, 2e);
    d. describing file system support for access control (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating the ability to implement, test, and monitor file system access control mechanisms (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of auditing and logging by
    a. demonstrating the ability to enable, configure, monitor, and manage auditing and logging (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating the ability to enumerate and perform tasks that will generate audit and log entries (1a, 1b, 2a, 2c, 2d, 2e);
    c. demonstrating the ability to view and analyze audit and log entries (1a, 1b, 2a, 2c, 2d, 2e);
    d. correlating audit and log entries with other system data such as network packet captures (1a, 1b, 2a, 2c, 2d, 2e).

ITSY 2401 - Firewalls and Network Security

General

Course Key
15285

Course Rubric
ITSY

Course Number
2401

Course Title
Firewalls and Network Security

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). Identify elements of secure network design that may include segmentation, Firewall implementation or a combination thereof to mitigate various types of security threats and attacks. Use Best Practices to design, implement, monitor and manage a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Recommended Prerequisite: ITSY-1300 and ITSY-2400.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take ITSY-1300 ITSY-2400;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITSY 1300 and ITSY 2400

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate system security skills through firewall implementation and testing; use system tools, practices, and relevant technologies to implement a security plan; evaluate practices, tools, and technologies to identify security breaches, sources of attacks, and protect mission critical systems; establish an appropriate level of security based on an analysis of security logs; and use relevant tools to secure a network, respond to, and follow up on various types of attacks. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the elements of security policies, standards, and practices by
    a. defining management's role in the development, maintenance, and enforcement of information security policy, standards, practices, procedures, and guidelines (1a, 1b, 2c, 2d, 2e);
    b. identifying the major components of an information security blueprint (1a, 1b, 2c, 2d, 2e);
    c. discuss how an organization institutionalizes polices, standards, and practices using education, training, and awareness programs (1a, 1b, 2c, 2d, 2e);
    d. explaining contingency planning (1a, 1b, 2c, 2d, 2e);
    e. describing the relationships between incident response planning, disaster recovery planning, business continuity planning, and contingency planning (1a, 1b, 2c, 2d, 2e).
2. Demonstrate an understanding of types of security threats and responses to security attacks by
    a. identifying the threats to information and network security and the common attacks associated with those threats (1a, 1b, 2c, 2d, 2e);
    b. identifying the standard responses to security attacks (1a, 1b, 2c, 2d, 2e);
    c. differentiating between threats to information within systems to attacks against information within systems (1a, 1b, 2c, 2d, 2e);
    d. describing the technologies used to implement intrusion detection and prevention systems (1a, 1b, 2c, 2d, 2e);
    e. defining honey pots, honey nets, and padded cell systems (1a, 1b, 2c, 2d, 2e);
    f. describing the technologies used to create honey pots, honey nets, and padded cell systems (1a, 1b, 2c, 2d, 2e);
    g. evaluating practices, tools, and technologies to identify security breaches, sources of attacks, and protect mission critical systems (1a, 1b, 2c, 2d, 2e).
3. Demonstrate an understanding of elements of firewall design by
    a. explaining what a firewall does (1a, 1b, 2c, 2d, 2e);
    b. discussing the types of firewall protection (1a, 1b, 2c, 2d, 2e);
    c. enumerating the components of a firewall (1a, 1b, 2c, 2d, 2e);
    d. identifying the limitations and strengths of firewalls (1a, 1b, 2c, 2d, 2e);
    e. identifying common misconceptions about firewalls (1a, 1b, 2c, 2d, 2e);
    f. explaining why a firewall is dependent on an effective security policy (1a, 1b, 2c, 2d, 2e);
    g. evaluating suitable hardware and software for a residential firewall application (1a, 1b, 2c, 2d, 2e);
    h. evaluating suitable hardware and software for a commercial firewall application (1a, 1b, 2c, 2d, 2e).
4. Demonstrate an understanding of common system and network vulnerabilities by
    a. listing common categories of vulnerabilities (1a, 1b, 2a, 2c, 2d, 2e);
    b. analyzing security logs (1a, 1b, 2a, 2c, 2d, 2e);
    c. accessing sources of information about emerging vulnerabilities (1a, 1b, 2a, 2c, 2d, 2e);
    d. identifying the names and functions of widely available scanning and analysis tools (1a, 1b, 2a, 2c, 2d, 2e).
5. Employ current technology and tools to test and secure a network by
    a. performing basic vulnerability testing using system tools, practices, and relevant technologies (1a, 1b, 2a, 2c, 2d, 2e);
    b. implementing technology, tools, and strategies to secure a network (1a, 1b, 2a, 2c, 2d, 2e).

ITSY 2443 - Computer System Forensics

General

Course Key
15284

Course Rubric	Course Number	Course Title
ITSY	2443	Computer System Forensics

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) In-depth study of system forensics including methodologies used for analysis of computer security breaches. Collect document and evaluate evidence to perform postmortem analysis of a security breach. Recommended Prerequisite(s): ITSY-2342

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take ITSY-2342
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITSY 2342

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify computer investigation issues; identify legal issues associated with computer investigations; collect document evidence and evaluate evidence; and evaluate network traffic. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of magnetic, optical, and solid state storage devices by
    a. describing the purpose, contents, and physical device location of boot records, partition tables, and file systems;
    b. describing what happens when a device is partitioned;
    c. describing what happens when a device is formatted;
    d. describing what happens when a bootable device is booted;
    e. describing what happens when a file system is mounted;
    f. describing the changes that occur to a file system when a file or directory is created;
    g. describing the changes that occur to a file system when a file or directory is deleted.
2. Demonstrate a working knowledge of classical forensic imaging techniques by
    a. sterilizing and verifying a device that will be used to store a forensic image;
    b. creating a forensic image of a device or partition to an image file or set of image files on a sterilized device;
    c. cloning a storage device to a similar sterilized device;
    d. restoring image file of a bootable device to a sterilized device and booting the restored image;
    e. imaging a device that is accessible via a network;
    f. discussing the role of write blockers and hashing when imaging.
3. Demonstrate a working knowledge of file recovery techniques by
    a. using appropriate tools to recover deleted files that are recoverable;
    b. using appropriate tools to recover slack and unallocated space into a file for later analysis;
    c. demonstrating an understanding of file signatures for common file formats;
    d. using appropriate tools to carve files from slack space and unallocated space;
    e. using appropriate tools to identify known files using hash databases;
    f. identifying operating system metadata files and application files that are forensically important;
    g. identifying unknown files that are suspicious and require further investigation.
4. Demonstrate a working knowledge of file analysis techniques by
    a. using appropriate tools to search files for text, binary strings, and grep patterns;
    b. using appropriate tools and viewers to examine nontext, compressed, or encrypted files;
    c. using appropriate tools to examine relevant files for evidence of web browsing activity;
    d. using appropriate tools to examine relevant files for evidence of email activity;
    e. identifying and examining operating system metadata files for evidence of suspicious activity;
    f. using file system timestamps to create a timeline of suspicious file system activity;
    g. examining log files for evidence pertinent to an investigation;
    h. examining suspicious executable files statically for evidence of malware.
5. Demonstrate a basic knowledge of live forensics analysis by
    a. comparing imaging of live and dead systems;
    b. using appropriate tools to capture volatile data from a live system;
    c. using appropriate tools to analyze volatile data from a live system;
    d. describing the tools and techniques used to analyze malware in a live environment;
    e. capturing and analyzing live network data.
6. Understand the role and environment of the forensic investigator by
    a. explaining constitutional and statutory limits on a forensic investigation;
    b. discussing the importance of chain of custody documentation;
    c. describing the role of forensics within the broader scope of incident response;
    d. writing a professional report documenting the results of a forensic investigation;
    e. discussing certifications applicable to the field of computer forensics.

ITSY 2459 - Security Assessment and Auditing

General

Course Key
15283

Course Rubric
ITSY

Course Number
2459

Course Title
Security Assessment and Auditing

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Comprehensive experience for the security curriculum. Synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems that ensure industry specific levels of protection are in place to assure regulatory compliance. Recommended Prerequisites: ITSY-2341 and ITSY-2400

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE ITSY-2341 ITSY-2400;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ITSY 2341 and ITSY 2400

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Appraise security plan to ensure appropriate level of protection; assess network security design; audit network system based on security design; use relevant tools to assure security requirements; and review security policies and procedures on a regular basis. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the three types of security controls by
    a. describing and giving examples of preventive controls (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing and giving examples of detective controls (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing and giving examples of reactive controls (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate an understanding of how security controls are implemented by
    a. describing and giving examples of administrative controls (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing and giving examples of technical controls (1a, 1b, 2a, 2c, 2d, 2e);
    c. describing and giving examples of physical controls (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate an understanding of the stages of a formal IT audit by
    a. discussing and giving examples that occur in the planning stage (1a, 1b, 2a, 2c, 2d, 2e);
    b. discussing and giving examples that occur in the fieldwork and documentation stage (1a, 1b, 2a, 2c, 2d, 2e);
    c. discussing and giving examples that occur in the issue discovery and validation stage (1a, 1b, 2a, 2c, 2d, 2e);
    d. discussing and giving examples that occur in the solution development stage (1a, 1b, 2a, 2c, 2d, 2e);
    e. discussing and giving examples that occur in the report drafting and issuance stage (1a, 1b, 2a, 2c, 2d, 2e);
    f. discussing and giving examples that occur in the issue tracking stage (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate an understanding of the various areas of IT security that are subject to auditing by
    a. explaining the techniques used to audit a data center's disaster recovery plan (1b, 2a, 2c, 2d, 2e);
    b. explaining the techniques used to audit switch, router, and firewall configuration (1b, 2a, 2c, 2d, 2e);
    c. explaining the techniques used to audit Windows operating systems (1b, 2a, 2c, 2d, 2e);
    d. explaining the techniques used to audit Unix/Linux operating systems (1b, 2a, 2c, 2d, 2e);
    e. explaining the techniques used to audit web servers (1b, 2a, 2c, 2d, 2e);
    f. explaining the techniques used to audit databases (1b, 2a, 2c, 2d, 2e);
    g. explaining the techniques used to audit applications (1b, 2a, 2c, 2d, 2e);
    h. explaining the techniques used to audit wireless and mobile devices (1b, 2a, 2c, 2d, 2e).
5. Demonstrate a basic knowledge of regulations and standards that may affect the auditing function by
    a. discussing the elements of the Sarbanes-Oxley Act (1b, 2a, 2c, 2d, 2e);
    b. discussing the elements of the Health Insurance Portability and Accountability Act (HIPPA) (1b, 2a, 2c, 2d, 2e);
    c. discussing the elements of Payment Card Industry (PCI) standard (1b, 2a, 2c, 2d, 2e);
    d. discussing the elements of the Control Objectives for Information and related Technology (COBIT) auditing framework (1b, 2a, 2c, 2d, 2e).

KINE 1102 - Aerobic Fitness - Beginning

General

Course Key
16075

Course Rubric
KINE

Course Number
1102

Course Title
Aerobic Fitness Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular endurance/strength, flexibility, and body composition. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1104 - Bowling - Beginning

General

Course Key
16076

Course Rubric
KINE

Course Number
1104

Course Title
Bowling Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops the basic skills necessary to enjoy the lifetime sport of bowling. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1105 - Camping/Backpacking - Beginning

General

Course Key
16077

Course Rubric
KINE

Course Number
1105

Course Title
Camping and Backpacking Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops the basic skills necessary to enjoy the lifetime sport of camping and backpacking. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1107 - Conditioning - Beginning

General

Course Key
16078

Course Rubric
KINE

Course Number
1107

Course Title
Conditioning Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular-respiratory fitness, body composition, flexibility, muscular endurance, and muscular strength. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1113 - Kickboxing - Beginning

General

Course Key
16079

Course Rubric
KINE

Course Number
1113

Course Title
Kickboxing Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular endurance/strength, flexibility, and body composition. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1116 - Recreational Sports - Beginning

General

Course Key
16080

Course Rubric
KINE

Course Number
1116

Course Title
Recreational Sports Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops and improves basic skills, strategies, and rules of various recreational sports. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1117 - Sailing - Beginning

General

Course Key
16081

Course Rubric
KINE

Course Number
1117

Course Title
Sailing Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Learn to sail safely. Covers sailing tasks associated with points of sailing, nautical terms, boat rescue and/or recovery, and the operation and repair of sailing equipment. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1119 - Self Defense-Beginning

General

Course Key
16082

Course Rubric
KINE

Course Number
1119

Course Title
Self Defense Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. Improves awareness skills and develops self-defense techniques against various attacks including: chokes, head locks, grabs, ground fighting and ground defense techniques, frontal and rear attacks, attacks from multiple opponents, weapons and weapon disarmament. (Course is coeducational.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1121 - Swim Conditioning - Beginning

General

Course Key
16083

Course Rubric
KINE

Course Number
1121

Course Title
Swim Conditioning Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular strength/endurance, and body composition. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1122 - Swimming - Beginning

General

Course Key
16084

Course Rubric
KINE

Course Number
1122

Course Title
Swimming Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops good swimming technique, improves cardiovascular fitness level, and teaches water safety skills. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1125 - Tennis - Beginning

General

Course Key
16085

Course Rubric
KINE

Course Number
1125

Course Title
Tennis Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops and improves skills, strategies, and rules for the game of tennis. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1127 - Pickleball - Beginning

General

Course Key
16086

Course Rubric
KINE

Course Number
1127

Course Title
Pickleball - Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. This course is coeducational. Students will learn the basics of pickleball play. The class will study basic skills and how to apply them into game situations. Skills such as ball control, forehand/backhand drive, drive/lob serve, forehand/backhand lob, smash and strategy will be covered.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1128 - Volleyball - Beginning

General

Course Key
16087

Course Rubric
KINE

Course Number
1128

Course Title
Volleyball Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. Develops and improves basic skills, strategies, and rules for the game of volleyball. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1129 - Walk/Jog - Beginning

General

Course Key
16088

Course Rubric
KINE

Course Number
1129

Course Title
Walk or Jog Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, body composition, and flexibility. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1131 - Water Aerobics - Beginning

General

Course Key
16089

Course Rubric
KINE

Course Number
1131

Course Title
Water Aerobics Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops cardiovascular endurance, flexibility, and muscular endurance/ strength through the resistance medium of water, and covers weight control. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1132 - Water Exercise - Beginning

General

Course Key
16090

Course Rubric
KINE

Course Number
1132

Course Title
Water Exercise Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular strength/endurance, and flexibility through water exercises, and covers a diet/weight management program. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1133 - Weight Training - Beginning

General

Course Key
16091

Course Rubric
KINE

Course Number
1133

Course Title
Weight Training Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves muscular endurance and/or muscular strength. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1134 - Yoga - Beginning

General

Course Key
16092

Course Rubric
KINE

Course Number
1134

Course Title
Yoga Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves flexibility, muscular endurance/strength, and mental well-being. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1148 - Pilates - Beginning

General

Course Key
16093

Course Rubric
KINE

Course Number
1148

Course Title
Pilates Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Covers basic concepts and skills in the Pilates method of conditioning, including core strength, muscle tone, coordination, and flexibility. Non-impact mat exercises are modified to various fitness levels.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1149 - Fencing - Beginning

General

Course Key
16094

Course Rubric
KINE

Course Number
1149

Course Title
Fencing - Beginning

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. Students will learn basic foil fencing techniques and footwork. This class will study the basic fencing rules, etiquette, scoring systems, terminology, strategies and tactics plus a brief introduction to the history of the sport.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1164 - Intro to Physical Fitness & Wellness

General

Course Key
16072

Course Rubric
KINE

Course Number
1164

Course Title
Introduction to Physical Fitness and Wellness

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-1-2) This course will provide an overview of the lifestyle necessary for fitness and health. Students will participate in physical activities and assess their fitness status. Students will be introduced to proper nutrition, weight management, cardiovascular health, flexibility, and strength training. Includes 1.Scientific information concerning values and preventive medical benefits of exercise. 2.Individual (personal) evaluations and experiments to determine present health fitness status. 3.Development of a personal exercise program based on student's needs.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1301 - Foundations of Kinesiology

General

Course Key
16073

Course Rubric
KINE

Course Number
1301

Course Title
Foundations of Kinesiology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1304 - Personal and Community Health

General

Course Key
16115

Course Rubric
KINE

Course Number
1304

Course Title
Personal and Community Health

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course provides an introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1306 - First Aid

General

Course Key
16116

Course Rubric
KINE

Course Number
1306

Course Title
First Aid

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may enable the student to receive a certificate from a nationally recognized agency.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1308 - Sports Officiating

General

Course Key
16070

Course Rubric
KINE

Course Number
1308

Course Title
Sports Officiating

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). The purpose of the course is to study officiating requirements for sports and games with an emphasis on mechanics, rule interpretation, and enforcement. (Course is co-educational.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1321 - Coaching/Sports/Athletics I

General

Course Key
16074

Course Rubric
KINE

Course Number
1321

Course Title
Coaching/Sports/Athletics I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2) Study of the history, theories, philosophies, rules, and terminology of competitive sports. Includes coaching techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 1338 - Concepts of Physical Fitness

General

Course Key
16071

Course Rubric
KINE

Course Number
1338

Course Title
Concepts of Physical Fitness

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)This course is designed to familiarize students with knowledge, understanding and values of health related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs. This course may not be substituted for KINE-1164 in the TCC Core Curriculum. Recommended prerequisite: KINE-1164

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE KINE-1164;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

KINE 2102 - Aerobic Fitness - Intermediate

General

Course Key
16095

Course Rubric
KINE

Course Number
2102

Course Title
Aerobic Fitness Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular endurance/strength, flexibility, and body composition. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2107 - Conditioning - Intermediate

General

Course Key
16097

Course Rubric
KINE

Course Number
2107

Course Title
Conditioning Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular-respiratory fitness, body composition, flexibility, muscular endurance, and muscular strength. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2113 - Kickboxing - Intermediate

General

Course Key
16098

Course Rubric
KINE

Course Number
2113

Course Title
Kickboxing Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular endurance/strength, flexibility, and body composition. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2117 - Sailing - Intermediate

General

Course Key
16099

Course Rubric
KINE

Course Number
2117

Course Title
Sailing Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Learn to sail safely. Covers sailing tasks associated with points of sailing, nautical terms, boat rescue and/or recovery, and the operation and repair of sailing equipment. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2119 - Self Defense-Intermediate

General

Course Key
16100

Course Rubric
KINE

Course Number
2119

Course Title
Self Defense Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. Continuation of KINE-1119 with emphasis on more advanced techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2121 - Swim Conditioning - Intermediate

General

Course Key
16101

Course Rubric
KINE

Course Number
2121

Course Title
Swim Conditioning Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular strength/endurance, and body composition. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2122 - Swimming - Intermediate

General

Course Key
16102

Course Rubric
KINE

Course Number
2122

Course Title
Swimming Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. Develops good swimming technique, improves cardiovascular fitness level, and teaches water safety skills. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2125 - Tennis - Intermediate

General

Course Key
16104

Course Rubric
KINE

Course Number
2125

Course Title
Tennis Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops and improves skills, strategies, and rules for the game of tennis. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2127 - Pickleball - Intermediate

General

Course Key
16105

Course Rubric
KINE

Course Number
2127

Course Title
Pickleball - Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. This course is for students with credit in Beginning Pickleball or equivalent experience. Basic skills will be reviewed and refined. New and advanced skills and tactics will be introduced. Recommended Prerequisite: KINE-1127

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take KINE-1127
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

KINE 2128 - Volleyball - Intermediate

General

Course Key
16106

Course Rubric
KINE

Course Number
2128

Course Title
Volleyball Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops and improves basic skills, strategies, and rules for the game of volleyball. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2129 - Walk/Jog - Intermediate

General

Course Key
16107

Course Rubric
KINE

Course Number
2129

Course Title
Walk or Jog Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, body composition, and flexibility. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2131 - Water Aerobics - Intermediate

General

Course Key
16108

Course Rubric
KINE

Course Number
2131

Course Title
Water Aerobics Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Develops cardiovascular endurance, flexibility, and muscular endurance/ strength through the resistance medium of water, and covers weight control. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2132 - Water Exercise - Intermediate

General

Course Key
16109

Course Rubric
KINE

Course Number
2132

Course Title
Water Exercise Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves cardiovascular fitness, muscular strength/endurance, flexibility through water exercises, and covers a diet/weight management program. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2133 - Weight Training - Intermediate

General

Course Key
16110

Course Rubric
KINE

Course Number
2133

Course Title
Weight Training Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves muscular endurance and/or muscular strength. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2134 - Yoga - Intermediate

General

Course Key
16111

Course Rubric
KINE

Course Number
2134

Course Title
Yoga Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Improves flexibility, muscular endurance/strength, and mental well-being. (Course is coeducational)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2148 - Pilates - Intermediate

General

Course Key
16112

Course Rubric
KINE

Course Number
2148

Course Title
Pilates Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Instruction and participation in physical and recreational activities. Covers basic concepts and skills in the Pilates method of conditioning, including core strength, muscle tone, coordination, and flexibility. Non-impact mat exercises are modified to various fitness levels.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

KINE 2149 - Fencing - Intermediate

General

Course Key
16113

Course Rubric
KINE

Course Number
2149

Course Title
Fencing - Intermediate

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Instruction and participation in physical and recreational activities. This course is for students with credit in Fencing - Beginning or equivalent experience. Basic skills will be reviewed and refined. New and advanced skills and tactics will be introduced. Recommended Prerequisite: KINE-1149

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE KINE-1149
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

KINE 2356 - Care and Prevention of Athletic Injuries

General

Course Key
16114

Course Rubric
KINE

Course Number
2356

Course Title
Care and Prevention of Athletic Injuries

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Prevention and care of athletic injuries with emphasis on qualities of a good athletic trainer, avoiding accidents and injuries, recognizing signs and symptoms of specific sports injuries and conditions, immediate and long-term care of injuries, and administration procedures in athletic training.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

LBRA 1174 - Practicum in Library Technology

General

Course Key
12507

Course Rubric
LBRA

Course Number
1174

Course Title
Practicum in Library Technology

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
7

Course Classification
Technical Local Need

Description
(1-0-7) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the College, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate an understanding of the library and information sciences profession by establishing a learning plan; demonstrate an understanding of the library catalog and classification system; perform the functions of an interlibrary loan transaction, charging, and discharging library materials, and troubleshooting equipment; demonstrate a knowledge of ethics, law, and regulations governing libraries.

1. Collaborate with a supervising librarian to establish a learning plan with goals and objectives (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Participate in a variety of activities and situations that are comparable to a paraprofessional position within a library or information agency (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Explain how materials are catalogued, classified, shelved, located, and processed in a library (1a, 1b, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate transactions performed in libraries by creating an interlibrary loan transaction (1c, 2a, 2b, 2c, 2d, 2e).
5. Illustrate the charging and discharging of library materials (2a, 2b, 2c, 2d, 2e).
6. Demonstrate troubleshooting equipment (1c, 2a, 2b, 2c, 2d, 2e).
7. Identify basic concepts of ethics, law, and regulations governing libraries and librarians, including the Library Bill of Rights, Code of Ethics, The Freedom of Information Act, copyright, and privacy issues (1a, 1b, 1c, 2a, 2c, 2d, 2e).
8. Analyze the use of changing technology and library resources (1a, 1b, 2a, 2b, 2c, 2d, 2e).

LBRA 1371 - Introduction to Library Technology

General

Course Key
9391

Course Rubric
LBRA

Course Number
1371

Course Title
Introduction to Library Technology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Introduction to evolving roles of library information paraprofessionals, including historical and philosophical foundations of libraries, and overview of the professional setting, including types of libraries, information centers and professional organizations. Focus is on the comprehensive study of advanced communication skills for library assistants including techniques in reading, writing, listening, and speaking. Covers types of information organizations and employers, role of the LTA, automation, history of the book, tools, and terminology, basic library philosophy, seeking a job, library vendors, conflict resolution, and dealing with change. Recommended prerequisite for all other LBRA courses.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate an understanding of the library and information sciences profession and job functions; identify major categories of reference materials; demonstrate a knowledge of how materials are cataloged and classified in a library; understand basic concepts of ethics, law, and regulations governing libraries, librarians, and transactions in libraries.

1. Describe the importance of libraries by identifying major events in library history and major types of libraries (1a, 2a, 2c).
2. Explain the roles and relationships between library functions, i.e. circulation, reference, collection development, and cataloging (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Describe job functions of select library personnel (1a, 1c, 2a, 2c).
4. Compare a database search and an internet search in selecting books for a collection and changing technology (1a, 1b, 2a, 2c, 2d, 2e).
5. Identify major categories of reference materials, i.e. almanacs, yearbooks, indexes, handbooks, and encyclopedias (1a, 1b, 2a, 2c).
6. Explain how materials are cataloged and classified in a library system (1a, 1b, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate an understanding of transactions performed in libraries, such as developing a bibliography or explaining a title page (1a, 1b, 2a, 2b, 2c, 2d, 2e).
8. Outline the basic concepts of ethics, law, and regulations governing libraries and librarians including the Library Bill of Rights, Code of Ethics, The Freedom of Information Act, copyright, and privacy issues (1a, 1b, 2a, 2c, 2d, 2e).

LBRA 1372 - Organization of Information

General

Course Key
9392

Course Rubric
LBRA

Course Number
1372

Course Title
Organization of Information

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Introduction to cataloging systems (Library of Congress and Dewey Decimal), the acquisitions processes, bibliographic search tools, terminology, serials ordering, check-in and claims processes, and the US MARC coding. Recommended Prerequisite: LBRA-1371

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lbra-1371;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): LBRA 1371

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate an understanding of how to process books and periodicals for shelving; cataloging rules, and retrieval systems.

1. Demonstrate how books and periodicals are processed and shelved according to major classification systems (1a, 1b, 2a, 2b, 2c, 2d, 2e).
2. Explain the concept of subject access and controlled vocabulary (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate the use of MARC records and a bibliographic record (1a, 1b, 2a, 2b, 2c, 2d, 2e).
4. Evaluate a database and an OPAC database structure (1a, 1b, 2a, 2c, 2d, 2e).
5. Distinguish information-seeking behavior of different library users (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Identify major events and clientele in the development of information retrieval systems (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Evaluate resources based on domain knowledge and needs of clientele (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Refine an advanced search using a variety of limiters, filters, and sorting features (1a, 1b, 2a, 2c, 2d, 2e).

LBRA 1373 - Public Services

General

Course Key
9394

Course Rubric
LBRA

Course Number
1373

Course Title
Public Services

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Information access skills for print and electronic resources. Use of libraries and their structure, tools, and staff to identify, locate, evaluate and make effective and ethical use of information. Emphasizes critical thinking skills and clear concise written and spoken communication; techniques for time management, prioritizing reading materials, and comprehending the main ideas and salient details of technical materials, including journals and reports, and other work related materials. Recommended Prerequisite: LBRA-1371

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lbra-1371;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): LBRA 1371

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate use of libraries and their structure; staffing; customer service skills; effective communication; interlibrary loan service procedures; circulation and classification systems and procedures; library ethics and patron privacy; special collections; library image; and promotional campaigns.

1. Describe technical and interpersonal skills needed to staff libraries (1a, 1b, 1c, 2a, 2b, 2c).
2. Demonstrate effective communication skills with customers in locating books, retrieving articles, and answering directional questions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Outline the procedure for processing an interlibrary loan request (1a, 1b, 2a, 2b, 2c, 2e).
4. Describe an automated circulation system (1a, 1b, 2c, 2a, 2c, 2d, 2e).
5. Demonstrate skills in material and shelf maintenance by listing key classification systems (1a, 1b, 2a, 2b, 2c, 2d, 2e).
6. Explain library ethics and patron privacy in accordance with the ALA Bill of Rights, the ALA Code of Ethics, and the ALA Policy on Confidentiality of Library Records (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Describe special collections including reserves, serials, media, government information, and archives (1a, 1b, 2a, 2c, 2d, 2e).
8. Explain how to assist with services to promote the library's image, programs, and mission (1a, 1b, 2a, 2b, 2c).

LBRA 1375 - Information Sources and Services

General

Course Key
9393

Course Rubric
LBRA

Course Number
1375

Course Title
Information Sources and Services

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Covers reference philosophy, mission, major types of libraries, criteria to evaluate an information source, information sources available in all formats, the reference interview, search strategies, Boolean searching, and digital resources. Includes copyright laws and the role of professional associates in supporting library systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Understand the basics of information-seeking behavior; recognize appropriate resources and search strategies for users; identify current publication trends in technology; application of ethics.

1. Identify how users of a library are most likely to search for information (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Analyze the best resources available to meet user needs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Develop and apply appropriate search strategies for information retrieval in a variety of formats by searching print and electronic resources (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Identify professional library publications and library organizations (1a, 1b, 2a, 2c, 2d, 2e).
5. Recognize key differences between library types, the queries of patrons they serve, and the information provided by each (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Evaluate tools involved in building a reference collection with key criteria for material selection (1a, 1b, 2a, 2c).
7. Explain the American Library Association Code of Ethics and RUSA Behavioral Guidelines and Professional Competencies (1a, 1b, 2a, 2c).
8. Outline the basic core concepts of copyright law and fair use exemptions (1a, 1b, 2a, 2c, 2d, 2e).

LGLA 1303 - Legal Research

General

Course Key
24

Course Rubric
LGLA

Course Number
1303

Course Title
Legal Research

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Presents standard and/or computer-assisted legal research techniques in a law library emphasizing the paralegal's role. Required Corequisite: LGLA-1307

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required concurrent course.

10
A Requirement block where all subrequirements are required

Take LGLA-1307
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): LGLA 1307

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Locate primary and secondary legal authorities; apply effective research strategies using available research tools; and analyze the ethical considerations of the paralegal's role relating to legal research.

1. Demonstrate an understanding of primary legal resources by
    a. examining all primary sources of law including case law, statutory law, and administrative law (1a, 1b, 2a);
    b. explaining the role of case law, statutory law, and constitutional law in legal research (1b, 2a, 2c);
    c. using all state and federal case reporters, including the Supreme Court Reporter, Federal Reporter (all series), Federal Supplement (all series), and Southwestern Reporter - Texas Cases (all series) (1a, 1b, 2a);
    d. determining the issues and rules of law in various cases (1a, 1b);
    e. explaining the purpose and function of pocket parts and advance sheets (1b, 2c);
    f. interpreting statutory law including the U.S. Code and the Texas Statutes and Codes and the U.S. and Texas Constitutions (1b, 2c);
    g. interpreting rules and regulations using all State and Federal sources in Administrative Law (1b, 2c);
    h. explaining the elements of legislative history and its use in statutory interpretation (1b, 2a, 2c).
2. Demonstrate an understanding of legal finding tools and their use in locating primary law by
    a. using the Supreme Court Digest and the Texas Digest to locate case law (1b, 2c);
    b. explaining the function of the West key number system in digests and reporters (1b, 2c);
    c. demonstrating skill in the use of Shepard's Citations in updating case law and statutory materials both state and federal (1b, 2c).
3. Demonstrate an understanding of secondary legal resources by
    a. locating information using legal dictionaries and legal directories (1a, 1b);
    b. demonstrating the use of American Law Reports in legal research (1b, 2c);
    c. employing legal encyclopedias, both state and federal, in the search for legal information (1b, 2c);
    d. analyzing current issues by the use of legal periodicals and their indexes (1b, 2c);
    e. interpreting model codes and uniform laws and their applicability (1b, 2c);
    f. applying information gleaned from the Texas Litigation Guide in the search for legal information (1b, 2c);
4. Demonstrate an understanding of legal research techniques including computer assisted research techniques by
    a. using proper citation form in preparing written work (1a, 1b);
    b. using legal vocabulary appropriately in the preparation and presentation of legal projects (1a, 1b, 2c);
    c. applying proper format in the preparation of case briefs and legal memoranda (1b, 2c);
    d. interpreting complex legal issues in the preparation of case briefs or legal memoranda (1b, 2a, 2c);
    e. applying Boolean logic and natural language searching techniques in conducting computer assisted legal research (1b, 2c, 2e);
    f. locating current legal materials, both primary and secondary, using provided access to computerized legal databases (1b, 2a, 2c, 2e);
    g. producing legal research results using traditional research techniques and computer assisted techniques to validate results (1b, 2a, 2c, 2e).

LGLA 1305 - Legal Writing

General

Course Key
28

Course Rubric	Course Number	Course Title
LGLA	1305	Legal Writing

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Fundamentals of legal writing techniques including case and fact analysis, citation formats, and legal writing styles emphasizing the paralegal's role in legal writing. Required Prerequisites or Corequisites: LGLA-1307 and LGLA-1303

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/ Corequisite

10
A Requirement block where all subrequirements are required

Take LGLA-1303 and LGLA-1307
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): LGLA 1307 and LGLA 1303

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Draft legal documents including case and fact analysis, citation formats, and legal writing styles; and analyzing the ethical considerations of the paralegal's role relating to legal writing.

1. Demonstrate an understanding of the legal system and the role of court opinions by
    a. explaining the role of case law in legal writing (1b, 2a, 2c);
    b. differentiating the role of primary and secondary authority (1a, 1b);
    c. identifying the facts key to the court's holding (1b, 2c);
    d. identifying the issues key to the court's holding (1b, 2c);
    e. identifying the law key to the court's holding (1b, 2c);
    f. discussing the role of judicial politics in case law (1b, 2c).
2. Demonstrate an understanding of the use of proper citation in preparing written work by
    a. locating and citing state court opinions (1b, 2a, 2c);
    b. locating and citing federal court opinions (1b, 2a, 2c);
    c. analyzing and discussing components of court cases (1b, 2c);
    d. analyzing the differences and similarities of judicial systems (1b, 2c).
3. Demonstrate an understanding of the briefing process by
    a. using proper format in preparing case briefs (1b, 2c);
    b. determining the proper components of a comprehensive brief (1b, 2c);
    c. determining the proper components of a thumbnail brief (1b, 2c);
    d. identifying the parties to a court opinion (1b, 2c);
    e. identifying the parties' objectives in a court opinion (1b, 2c);
    f. identifying the parties' theories in a court opinion (1b, 2c);
    g. identifying the history of a court opinion (1b, 2c);
    h. identifying the key facts of a court opinion (1b, 2c);
    i. identifying the issues and holdings of a court opinion (1b, 2c);
    j. identifying the court's reasoning in a court opinion (1b, 2c).
4. Demonstrate an understanding of the application of court opinions by
    a. differentiating the application of fact similarities, fact differences, and fact gaps (1a, 1b);
    b. identifying the 10 major rules of law applied in court opinions (1b, 2a);
    c. differentiating the rules of law applicable to a court opinion (1a, 1b);
    d. determining the length and comprehensiveness of case analysis (1b, 2c);
    e. identifying the proper use of primary and secondary authority in legal writing (1b);
    f. interpreting complex legal issues in preparation of legal memoranda (1b, 2a, 2c);
    g. using proper format in preparing legal memoranda (1b, 2c).

LGLA 1307 - Intro to Law and the Legal Profession

General

Course Key
31

Course Rubric
LGLA

Course Number
1307

Course Title
Introduction to Law and the Legal Professions

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of the law and the legal professions including legal concepts, systems, and terminology; substantive areas of law and the federal and state judicial systems; ethical obligations and regulations; professional trends and issues with emphasis on the paralegal's role. Prerequisite to other legal assistant courses.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use legal terminology; explain fundamental legal concepts categorizing substantive areas of law and the federal and state judicial systems; and identify the ethical obligations of the legal professional in various practice areas with particular emphasis on the paralegal's role in the legal profession.

1. Demonstrate an understanding of the development of the law and the American Legal System and how to locate applicable legal materials by
    a. analyzing adopted principles of the common law tradition (1a, 1b);
    b. identifying the characteristics of procedural law (1a);
    c. identifying the characteristics of substantive law (1a);
    d. distinguishing between civil and criminal law and issues of each (1b);
    e. interpreting the roles of the branches of government and the separation of powers (1b, 2c);
    f. examining the effect of federalism on the judiciary (1b, 2c);
    g. identifying the legal terminology related to the American Legal system (1a);
    h. identifying the various types of legal research finding tools (1b, 2a, 2c);
    i. differentiating secondary authority and primary authority (2c).

2. Demonstrate an understanding of the judicial system and process, the role of the courts, judges, attorneys, paralegals, and the stages of the judicial process by
    a. examining the role of the court in disputes (1a, 1b);
    b. determining the role of the judge (1b, 2c);
    c. analyzing the steps required to comply with procedural due process (1b, 2c);
    d. defining the role of the court, prosecutor, and defense lawyers in the criminal justice system (1b, 2c);
    e. examining the stages of criminal and civil trials in both state and federal courts (1b, 2c);
    f. examining the stages of the Federal and Texas State Appellate process (1b, 2c);
    g. comparing jurisdiction, personnel, judges, and roles of the various Federal Courts and Texas State Courts (1b, 2c).

3. Demonstrate an understanding of the criminal justice system; the major areas of substantive civil law, including torts, contracts, real property, and wills and intestate succession; and methods of alternative dispute resolution by
    a. distinguishing between misdemeanors and felonies (1b);
    b. classifying different crimes (1b);
    c. categorizing the elements of various intentional torts, negligence, and strict liability torts (1a, 1b);
    d. explaining the elements of a contract, including quasi-contractual theory, contracts implied in fact, promissory estoppel, the parole evidence rule, and the statute of frauds (1a, 1b);
    e. describing the theories of tort and contract damages (1a, 1b);
    f. categorizing the types and elements of freehold estates, leasehold estates, and non-estates including easements, licenses, profits, and restrictive covenants (1a, 1b);
    g. categorizing the types of deeds (1a, 1b);
    h. explaining the law regarding mortgages and liens, eminent domain and condemnation, and adverse possession (1a);
    i. explaining the rules regarding equitable ownership, including trusts and equitable conversion (1a);
    j. analyzing the law regarding Texas intestate succession, wills, legacies, and devises (1a, 1b, 2c);
    k. categorizing the types and methods of alternative dispute resolution and their usage (1a, 1b).

4. Demonstrate an understanding of the ethical obligations of legal professionals in various practice areas by
    a. identifying the ethical rules governing the conduct of lawyers (1a, 1c);
    b. interpreting the ethical rules which govern the unauthorized practice and use of paralegals (1b, 1c);
    c. interpreting the rules governing pro bono, competence, impropriety, confidentiality, advertising, and solicitation of business (1b, 1c, 2c);
    d. interpreting the rules governing zealous representation within the bounds of the law (1a, 1c);
    e. explaining the paralegal's role in the legal system and the ethical constraints regarding the actions of paralegals (1a, 1b, 1c, 2d).

5. Demonstrate the ability to take oral instruction without visual aid and to produce accurate results utilizing information gleaned through oral instruction and research by
    a. producing appropriate responses to information requests received solely via oral instruction (1a, 1b, 2c);
    b. formulating insightful questions regarding the subject matter covered by all above listed substantive subjects (1a, 1b, 2c).

LGLA 1345 - Civil Litigation

General

Course Key
40

Course Rubric
LGLA

Course Number
1345

Course Title
Civil Litigation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)Presents fundamental concepts and procedures of civil litigation including pretrial, trial, and post-trial phases of litigation and emphasizes paralegal's role in civil litigation. Required Prerequisites or Corequisites: LGLA-1307 and LGLA-1303

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite/ Corequisite

10
A Requirement block where all subrequirements are required

Take LGLA-1303 and LGLA-1307
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s) or Corequisite(s): LGLA 1307 and LGLA 1303

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use terminology relating to civil litigation; analyze sources relating to civil litigation and applicable court rules; draft documents used in civil litigation; analyze the ethical considerations of the paralegal in relating to civil litigation.

1. Demonstrate an understanding of the civil court process and the paralegal's role in litigation support by
    a. defining the term civil litigation (1a);
    b. explaining the structure of the Federal and State court systems (1a, 1b);
    c. differentiating the jurisdiction of State and Federal courts (1a, 1b);
    d. analyzing the difference between in personam and in rem jurisdiction (1b, 2c);
    e. determining the proper court for different types of litigation (1b, 2c);
    f. distinguishing different systems of file organization and identifying the paralegal's role in creating and maintaining appropriate filing and reminder systems during the litigation process (1a, 1b, 2a).

2. Demonstrate an understanding of the initial litigation process and procedures by
    a. examining pleading forms for initiating different types of State and Federal civil actions, including requests for damages and/or injunctive relief (1a, 1b);
    b. examining the different methods of service of process in the State and Federal systems (1a, 1b);
    c. preparing plaintiff's initial pleadings in a State or Federal civil case utilizing proper formatting appropriate for filing with a court (1b, 2c);
    d. developing defensive pleadings, including answers and/or counterclaims and cross claims, utilizing proper formatting appropriate for filing with a court (1b, 2c);
    e. examining pretrial motion practice and attacks on plaintiff's pleadings (1b, 2c);
    f. differentiating between actions for interpleader and impleader (1b);
    g. evaluating different types of prayers for relief (1b, 2c).

3. Demonstrate an understanding of the pretrial discovery process by
    a. explaining the different forms of discovery and the purpose of each (1b, 2c);
    b. producing discovery documents, including interrogatories, disclosures, requests for production, and requests for admissions using proper format (1b, 2c);
    c. producing discovery responses to the many different forms of discovery using proper format (1b, 2c);
    d. differentiating between the different forms of depositions, when they are used, and the forms used to initiate depositions (1b, 2c);
    e. examining the techniques for resisting discovery (1a, 1b);
    f. examining the rules regarding preservation of evidence (1a, 1b).

4. Demonstrate an understanding of the trial and post-trial process by
    a. examining the stages of jury trials and nonjury trials (1a, 1b);
    b. examining the use of expert witnesses and the orderly presentation of evidence during a trial (1b, 2c);
    c. examining the use of technology in the presentation of courtroom evidence through the use of multimedia and computer generated imaging (1b, 2e);
    d. explaining the steps for enforcement and collection of judgments (1b, 2c);

e. explaining the steps of the appeals process (1a, 1b, 2c).

5. Demonstrate an understanding of the use of form books, both traditional and electronic, in the preparation of all forms of legal documents by

   a. locating and preparing State and Federal pleading and practice forms using traditional research methods (1a, 1b, 2a);

   b. preparing State and Federal pleadings using ProDoc electronic forms (1b, 2c, 2e);

   c. distinguishing between boilerplate forms, whether traditional or electronic, and individualized pleadings (1b, 2c, 2e).

LGLA 1353 - Wills, Trusts & Probate Administration

General

Course Key
46

Course Rubric
LGLA

Course Number
1353

Course Title
Wills, Trusts, and Probate Administration

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Fundamental concepts of the law of wills, trusts, and probate administration emphasizing the paralegal's role. Recommended Prerequisites: LGLA-1305 and LGLA-1345

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lgla-1305 lgla-1345;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): LGLA 1305 and LGLA 1345

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use terminology relating to wills, trusts, and probate administration; analyze sources relating to wills, trusts, and probate administration; draft documents commonly used in wills, trusts, and probate administration; and analyze the ethical considerations of the paralegal's role in wills, trusts, and probate administration.

1. Demonstrate an understanding of probate law and the estate planning process by

   a. defining the terms common to probate law;

   b. describing the origins of probate law;

   c. discussing the significance of the Texas Probate Code;

   d. determining proper venue as to estates of decedents;

   e. describing the general requirements of citation and/or notice;

   f. describing the methods of citation and/or notice;

   g. determining who inherits from a person who died intestate;

   h. classifying types of property ownership;

   i. differentiating between separate and community property;

   j. differentiating between per capita and per stirpes distribution;

   k. distinguishing between the degree of relationship by consanguinity and by affinity;

   l. identifying and assessing appropriate cases for use of an affidavit of heirship;

   m. identifying purposes and goals of estate planning;

   n. identifying the more common estate planning techniques;

   o. identifying common ethical problems in estate planning;

   p. applying the purposes and goals of estate planning to client situations;

   q. identifying the paralegal's role in estate planning;

   r. describing the common post mortem estate planning procedures.

2. Demonstrate an understanding of drafting, execution, and revocation of wills by

   a. listing the statutory requirements relating to the validity of a will;

   b. distinguishing between formal wills, holographic wills, and nuncupative wills;

   c. determining the competency of a witness to a will;

   d. defining self-proving affidavit;

   e. explaining how a will is revoked;

   f. listing and explaining the grounds of a will contest;

   g. describing the process by which wills are amended;

   h. identifying the nature and effect of standard will clauses;

   i. preparing basic estate planning documents, including wills;

   j. examining additional estate planning documents;

   k. discussing the benefits and drawbacks of durable powers of attorney;

   l. analyzing the requirements of a directive to physicians and a durable power of attorney for healthcare;

m. analyzing a designation of guardian and describing the benefits;

n. explaining the use of various marital agreements in connection with estate planning.

3. Demonstrate an understanding of the formation of different trusts by

a. describing the significance of the Texas Trust Code;

b. identifying the statutory and common law prerequisites to the creation of a valid trust;

c. listing the purposes and goals in creating trusts;

d. distinguishing between the various classifications of trusts;

e. identifying the required parties of trusts;

f. identifying the marital deduction and the exemption equivalent deduction in estate tax avoidance;

g. identifying the requirements of a will incorporating a contingent residuary trust for minor children;

h. distinguishing between a bypass trust and a QTIP trust;

i. describing the paralegal's role in gathering information necessary to prepare wills through client interviews and by requesting information from other sources;

j. describing the purpose and benefits of grantor living trusts;

k. describing the requirements necessary to create a living trust;

l. identifying the benefits of insurance trusts and grantor retained interests trusts;

m. identifying the benefits of children's or grandchildren's trusts;

n. identifying the benefits of charitable remainder trusts;

o. identifying the benefits of educational trusts.

4. Demonstrate an understanding of probate administration by

a. distinguishing between independent administration and dependent administration;

b. identifying the various applications filed to initiate independent administration;

c. identifying the steps required to begin independent administration;

d. identifying all relevant documents needed at the independent administration hearing;

e. identifying the information needed to prepare an inventory, appraisement, and listing of claims;

f. summarizing the steps necessary to close an estate;

g. identifying the various pleadings in filing a dependent administration;

h. identifying the steps required to begin dependent administration;

i. identifying all relevant documents needed at the dependent administration hearing;

j. summarizing the steps necessary to close a dependent administration;

k. distinguishing between the procedures for independent and dependent administrations with the alternative probate procedures;

l. determining when probate as a muniment of title is applicable to a client's fact situation;

m. listing the documents relevant to a determination of heirship;

n. determining when an estate may be settled by use of a small estate affidavit;

o. identifying postmortem elections and decisions applicable to estates;

p. identifying the steps necessary to effectuate the transfer of assets commonly owned by estates;

q. identifying documents relevant to the transfer of estate assets.

LGLA 1355 - Family Law

General

Course Key
49

Course Rubric
LGLA

Course Number
1355

Course Title
Family Law

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Fundamental concepts of family law including formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship with emphasis on the paralegal's role in family law. Recommended Prerequisites: LGLA-1305 and LGLA-1345

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lgla-1305 lgla-1345;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): LGLA 1305 and LGLA 1345

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use terminology relating to family law; analyze sources relating to family law; draft documents used in family law; and analyze the ethical considerations of the paralegal in family law.

1. Demonstrate an understanding of the family law process by

a. describing the licensure requirements;

b. identifying the differences in a formal and an informal marriage;

c. identifying the differences in valid, void, voidable, and putative marriage;

d. identifying a meretricious relationship;

e. explaining the effect of prohibited degrees of consanguinity;

f. examining the effect of marriage on adult status;

g. analyzing recoveries of attorney's fees.

2. Demonstrate an understanding of the marriage dissolution process by

a. identifying appropriate cases for petition to declare marriage void, petitions for annulment, and petitions for divorce;

b. assessing appropriate cases for petition to declare marriage void, petitions for annulment, and petitions for divorce;

c. preparing pleading forms for initiating different types of actions utilizing proper formatting appropriate for filing with a court;

d. examining the requirements for service of process;

e. analyzing a petition for divorce and determining the proper response.

3. Demonstrate an understanding of property issues at the time of divorce by

a. identifying separate property;

b. identifying community property;

c. identifying commingled property including the issues associated with tracing property;

d. describing the options for property division at the time of divorce;

e. examining property agreements relating to marriage;

f. examining agreements incident to divorce;

g. examining division of debts upon divorce.

4. Demonstrate an understanding of issues related to children by

a. describing the best interest of the child standard;

b. identifying custodial concerns of the court in suits affecting the parent/child relationship;

c. differentiating among sole managing conservator, joint managing conservator, and possessory conservator;

d. analyzing the procedural requirements for termination of the parent/child relationship;

e. describing the procedural requirements for adoption;

f. analyzing guidelines concerning child support;

g. analyzing procedural steps in paternity suits.

5. Demonstrate an understanding of the issues related to enforcing court orders by
    a. explaining enforcement of custody orders;
    b. explaining enforcement of property division orders;
    c. explaining enforcement of child support orders;
    d. explaining enforcement of conduct related orders;
    e. explaining enforcement of visitation orders;
    f. explaining criminal sanctions for violations of court orders.

LGLA 2281 - Cooperative Education - Legal Assistant

General

Course Key
57

Course Rubric	Course Number	Course Title
LGLA	2281	Cooperative Education - Legal Assistant/ Paralegal

Semester Credit Hours	Lecture Hours	Lab Hours
2	1	10

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-10). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

1. Demonstrate the ability to conduct and track a job search from preparation of a resume to accepting a job offer and to manage all of the required functions of the cooperative education evaluation process by
    a. creating an effective resume and cover letter;
    b. arranging appointment for a job interview;
    c. preparing for a job interview;
    d. demonstrating sufficient skills in a job interview to be successful in the interview and receive an offer of employment;
    e. arranging for one or more office visits and evaluations by the course instructor and work station supervisor.
2. Display a professional demeanor, enthusiasm, and dependability in the performance of assigned tasks by
    a. demonstrating the ability to prioritize assignments, appropriately utilize law office policy, and complete assigned tasks accurately within a reasonable time;
    b. working with the work station filing system through opening new files, organizing active files, and/or closing files pursuant to the directions of the supervisor and subject to the needs of the work station;
    c. using the work station tickler system, including but not limited to accessing deadlines and/or adding new deadlines as directed by the supervisor and subject to the needs of the work station;
    d. demonstrating the ability to work cooperatively with other employees of the work station and responding appropriately to the direction of the supervisor, including demonstrating an understanding of the team approach to law office management and the paralegal's role within the system;
    e. acting appropriately in attendance at and participation in depositions, hearings, trials, or mediations as assigned by work station supervisor and pursuant to the availability of such experiences within the work station.
3. Demonstrate the ability to perform all assigned tasks of a paralegal with skill and knowledge and to communicate effectively orally and in writing by
    a. filing appropriate legal documents at the courthouse as directed by the work station supervisor, pursuant to the needs of the work station;
    b. utilizing word processing software and other computer software utilized by the work station to create drafts of assigned initial pleadings, motions, orders, correspondence, and transmittal letters as directed by the work station supervisor and pursuant to the specific needs of the work station;
    c. assembling pertinent case information including organizing files, preparing deposition summaries, organizing and cataloguing discovery responses, and preparing trial notebooks at the direction of the work station supervisor and pursuant to the specific needs of the workstation;
    d. demonstrating the ability to explain job skills and duties required during the work, following the program of duties designed by the student and the work station, and demonstrating improvement in performance in all facets of paralegal duties during the course of the work.

LGLA 2288 - Internship - Legal Assistant

General

Course Key
61

Course Rubric	Course Number	Course Title
LGLA	2288	Internship - Legal Assistant/Paralegal

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	10

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-10). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer. Required Prerequisite: LGLA 2281.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lgla-2281;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): LGLA 2281

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Display a professional demeanor, enthusiasm, and dependability in the performance of assigned tasks by
    a. demonstrating the ability to prioritize assignments, appropriately utilize law office policy, and complete assigned tasks accurately within a reasonable time (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. working with the work station filing system through opening new files, organizing active files, and/or closing files pursuant to the directions of the supervisor and subject to the needs of the work station (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. using the work station tickler system, including but not limited to accessing deadlines and/or adding new deadlines as directed by the supervisor and subject to the needs of the work station (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. demonstrating the ability to work cooperatively with other employees of the work station and respond appropriately to the direction of the supervisor, including demonstrating an understanding of the team approach to law office management and the paralegal's role within the system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. acting appropriately in attendance at and participation in depositions, hearings, trials, or mediations as assigned by work station supervisor and pursuant to the availability of such experiences within the work station (1a, 1c, 2a, 2b, 2c).
2. Demonstrate the ability to perform all assigned tasks of a paralegal with skill and knowledge and to communicate effectively orally and in writing by
    a. filing appropriate legal documents at the courthouse as directed by the work station supervisor, pursuant to the needs of the work station (1a, 1b, 1c, 2a, 2b, 2d);
    b. utilizing word processing software and other computer software utilized by the work station to create drafts of assigned initial pleadings, motions, orders, correspondence, and transmittal letters as directed by the work station supervisor and pursuant to the specific needs of the workstation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. assembling pertinent case information, including organizing files, preparing deposition summaries, organizing and cataloguing discovery responses, and preparing trial notebooks at the direction of the work station supervisor and pursuant to the specific needs of the work station (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. demonstrating the ability to explain job skills and duties required during the work, follow the program of duties designed by the student and the work station, and demonstrate improvement in performance in all facets of paralegal duties during the course of the work (1a, 1b, 1c, 2a, 2b, 2c).
3. Carry out all of the required functions of the internship evaluation process by
    a. arranging for one or more office visits and evaluations by the course instructor and work station supervisor (1a, 1c, 2a, 2b);
    b. demonstrating the ability to maintain regular and appropriate contact with course instructor and prepare required documents in conjunction with work station supervisor as required by course instructor (1a, 1b, 1c, 2b, 2c).

LGLA 2303 - Torts and Personal Injury Law

General

Course Key
66

Course Rubric	Course Number	Course Title
LGLA	2303	Torts and Personal Injury Law

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Fundamental concepts of tort and personal injury law including intentional torts, negligence, and strict liability with emphasis on the paralegal's role. Recommended Prerequisites: LGLA-1305 and LGLA-1345

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lgla-1305 lgla-1345;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): LGLA 1305 and LGLA 1345

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use terminology relating to tort and personal injury law; analyze sources relating to tort and personal injury law; draft documents used in tort and personal injury law; and analyze the ethical considerations of the paralegal's role in tort and personal injury law.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the law of torts by
   a. defining the terms tort and tortfeasor (1a);
   b. demonstrating the ability to locate, describe, and analyze sources of tort law (1a, 1b, 2c);
   c. distinguishing among negligence, intentional torts, and strict liability torts (1b);
   d. tracing the history of tort law (1a, 1b, 2c);
   e. describing the public policy objectives of tort law (1a, 1b, 2c);
   f. solving tort problems through identifying issues, rules of law, and conclusions in a given fact situation (1a, 1b, 2c);
   g. listing the basic steps in a civil case (1a, 1b);
   h. contrasting methods of alternative dispute resolution from litigation (1b, 2c);
   i. describing the role and ethical considerations of the paralegal in tort law (1a, 1b);
   j. displaying ability to draft documents used in tort law (1b, 2c, 2e).

2. Demonstrate an understanding of the issues related to negligence in tort law by
   a. defining the term negligence (1a);
   b. listing the elements of negligence (1a, 1b);
   c. describing the scope of duty and the standard of reasonable care in negligence actions (1a, 1b, 2c);
   d. describing the scope of foreseeability in negligence actions (1a, 1b, 2c);
   e. describing the scope of causation in negligence actions (1a, 1b, 2c);
   f. distinguishing between joint and several liability, contribution, and indemnity (1a, 1b, 2c);
   g. describing the scope of damages in negligence actions (1a, 1b);
   h. distinguishing among compensatory damages, hedonic damages, general damages, special damages, economic and noneconomic damages, nominal damages, and punitive damages (1a, 1b, 2c);
   i. defining the term vicarious liability (1a);
   j. describing the scope of respondent superior (1a, 1b);
   k. summarizing the duties property owners or occupiers of land owe to others on their land (1a, 1b, 2c);
   l. distinguishing among invitees, licensees, and trespassers (1b, 2c);
   m. listing the elements of negligent infliction of emotional distress (1a, 1b);
   n. describing the scope of negligence per se (1a, 1b);
   o. explaining defenses to negligence actions (1b, 2c);
   p. distinguishing among contributory negligence, comparative negligence, and assumption of risk (1b, 2c);
   q. identifying specific statutes of limitations to negligence actions (1b, 2c).

3. Demonstrate an understanding of the issues related to intentional acts in tort law by
   a. defining the term intentional tort (1a);
   b. explaining the concept of assault and battery (1b, 2c);
   c. explaining the concept of patient dumping (1b, 2c);
   d. explaining the concept of false imprisonment (1b, 2c);
   e. explaining the concept of sexual harassment (1b, 2c);
   f. explaining the concept of spoliation of evidence (1b, 2c);
   g. defining the term infliction of emotional distress (1a);
   h. explaining the legal concepts of fraud and misrepresentation (1b, 2c);
   i. explaining the legal concepts of malicious prosecution and abuse of process (1b);
   j. explaining the concept of invasion of privacy (1b, 2c);
   k. explaining the concept of defamation (1b, 2c);
   l. listing the elements of defamation (1a, 1b);
   m. explaining the tort of trespass to land (1b);
   n. listing the elements of trespass to land (1a, 1b);
   o. explaining toxic tort actions (1b);
   p. explaining the tort of trespass to chattel (1b);
   q. explaining the tort of conversion (1b);
   r. distinguishing among the torts of slander of title, commercial disparagement, and defamation by computer (1b);
   s. explaining defenses to intentional torts (1b);
   t. distinguishing between consent and self-defenses (1b, 2c);
   u. distinguishing between defenses of persons and defenses of property (1b, 2c);
   v. explaining the defenses of rightful possession (1a, 1b);
   w. distinguishing among the defenses of mistake, privilege, and necessity (1b);
   x. explaining the defenses of public immunity (1b);
   y. identifying the specific statutes of limitations to intentional torts (1b, 2c).

4. Demonstrate an understanding of the issues related to strict liability and product liability in tort law by
   a. identifying the tort actions of strict liability (1b, 2c);
   b. describing animal owners' liability (1a, 1b);
   c. distinguishing between liability for wild animals and liability for domesticated animals (1b, 2c);
   d. explaining tort liability for engaging in abnormally dangerous activities (1b);
   e. distinguishing between mass torts and class actions (1b, 2c);
   f. identifying the tort of products liability (1b, 2c);
   g. discussing the historical development of product liability (1b);
   h. identifying the claims of parties involved in product liability actions (1b, 2c);
   i. listing the elements of product liability actions (1a, 1b);
   j. explaining the defenses of product liability actions (1b);
   k. explaining the tort of bad faith (1b).

5. Demonstrate an understanding of the issues related to special tort actions, tort immunities, and tort investigation by
   a. distinguishing between private and public nuisances (1b);
   b. listing the remedies for nuisances (1a, 1b);
   c. describing the legal remedies of survival statutes and wrongful death statutes (1a, 1b);
   d. describing the tort of wrongful death (1a, 1b);
   e. explaining the immunities to tort actions (1b);
   f. distinguishing among sovereign immunity, immunity for public officers, family immunity, and workers' compensation immunity (1b, 2c);
   g. explaining the importance of tort case investigation (1b);
   h. describing witness interviewing techniques (1a, 1b);
   i. determining methods for locating defendants and witnesses (1a, 1b);
   j. explaining the need for documenting the scene of a tort injury (1b);
   k. examining the public and private sector resources of information (1a, 1b);
   l. distinguishing between investigating different types of tort action (1b, 2c).

LGLA 2311 - Business Organizations

General

Course Key
8913

Course Rubric	Course Number	Course Title
LGLA	2311	Business Organizations
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Basic concepts of business organizations including law of agency, sole proprietorships, partnerships, corporations, and other emerging business entities with emphasis on the paralegal's role.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use terminology relating to business organizations; analyze sources of law relating to business organizations; draft documents required for the formation, operation, and termination of business entities; and ethical considerations of the paralegal relating to business entities.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. Demonstrate an understanding of the different business organizations by
    a. distinguishing between the three major types of business enterprises: sole proprietorships, partnerships, and corporations (1a, 1b, 2c);
    b. describing the rights, duties, and powers among partners (1a, 1b, 2c);
    c. explaining how general principles of agency law relate to partnerships and affect partners' liability and authority (1b, 2c);
    d. identifying events that result in the dissolution of a general partnership (1b, 2c);
    e. identifying events that result in the dissolution of a limited partnership (1b, 2c);
    f. describing the distribution of assets on dissolution of a general partnership (1b, 2c);
    g. describing the distribution of assets on dissolution of a limited partnership (1b, 2c);
    h. distinguishing between the formation of a limited partnership and the formation of a general partnership and the documents to form each (1b, 2c);
    i. identifying the rights and liabilities of a limited partner (1a, 1b, 2c);
    j. identifying characteristics of corporations (1a, 1b, 2c);
    k. explaining the steps involved in forming a corporation, including the documents to be prepared (1a, 1b, 2c, 2e);
    l. describing factors that cause courts to pierce the corporate veil (1a, 1b, 2c);
    m. summarizing the rights and duties of directors, officers, and managers (1a, 1b, 2c);
    n. describing the rights of shareholders (1a, 1b, 2c);
    o. distinguishing between mergers and consolidations (1b, 2c);
    p. explaining the effects of a corporation's purchase of all or substantially all of another corporation's assets, or the voting shares of another corporation's stock (1b, 2c);
    q. explaining the phases of termination of a corporation and the documents for termination (1a, 2c);
    r. evaluating the role and ethical considerations of the paralegal relating to the formation, operation, and termination of business entities (1a, 1b, 1c, 2a, 2c);
    s. displaying ability to research sources of law relating to business organizations (1a, 1b, 2c, 2e);
    t. using terminology relating to business organizations (1a, 1b);
    u. explaining the differences between stocks and bonds (1a, 2c);
    v. describing the provisions of the Securities Act of 1933, including the definition of a security, registration requirements, and exempt offerings and securities (1a, 2c);
    w. describing the provisions of the Securities Exchange Act of 1934, especially regulation of insider trading under Section 10(b), Rule 10b-S, and Section 16(b) (1a, 1c);
    x. explaining the features of state securities laws (1a, 2c).
2. Demonstrate an understanding of government regulation of business by
    a. describing the efforts of the Federal Trade Commission (FTC) against unfair and deceptive advertising and bait and switch advertising (1a, 1b, 2c);
    b. explaining regulation of credit in consumer transactions, including requirements under the Truth in Lending Act and other federal legislation (1a, 1b, 2c);
    c. explaining state regulation of consumer transactions, including regulation under the Texas Deceptive Trade Practices Act (1a, 1b, 2c).
3. Demonstrate an understanding of sales and lease contracts by
    a. describing the scope of UCC Article 2 including the definitions of sale, goods, and merchant (1a, 1b, 2c);
    b. describing the formation of a contract for a sale of goods, including the elements of offer, acceptance, and consideration (1a, 1b, 2c);
    c. explaining when a sales contract is enforceable despite the absence of a writing (1a, 2c);
    d. identifying when title to goods passes from seller to buyer and who risks a financial loss if goods are damaged, destroyed, or lost (1a, 2c);
    e. defining various contract terms that help to determine when the risk of loss passes from seller to buyer under the UCC (1a, 1b, 2c);
    f. explaining the seller's obligation under a contract within the UCC to tender delivery of conforming goods and the buyer's obligation to accept and pay for goods according to the contract (1a, 1b, 2c);
    g. describing the options available in cases of anticipatory repudiation of a sales contract within the UCC (1a, 2c);
    h. describing the remedies available to a buyer and to a seller when the other party is in breach under the UCC;
    i. defining express warranties, implied warranties of merchantability, fitness for a particular purpose, and implied warranties arising from a course of dealing or usage of trade (1a, 2c);
    j. distinguishing between negligence as the basis of liability in a product liability suit and the imposition of strict liability in a product liability context (1b, 2c).
4. Demonstrate an understanding of creditors' rights and bankruptcy law by
    a. defining security interest, secured party, debtor, security agreement, collateral, and other terms used in secured transactions (1a, 2c);
    b. stating what is necessary to create an enforceable security interest (1a, 1b, 2c);
    c. describing perfection and how it is accomplished by filing, by possession, and automatically (1a, 1b, 2c);
    d. explaining how a security agreement covers proceeds from the sale of collateral, after acquired property, and future advances (1a, 2c);
    e. describing how security agreements are enforced: how a creditor repossesses and disposes of collateral (1a, 1b, 2c);
    f. distinguishing between statutory and common law liens, including a mechanic's lien, an artisan's lien, and judicial liens (1a, 1b, 2c);
    g. describing what property is exempt from levy of execution or attachment (1a, 2c);
    h. describing suretyship and guaranty, including their differences and the similarities (1b, 2c);
    i. describing a Chapter 7 liquidation, that is, an ordinary or straight bankruptcy (1a, 2b);
    j. explaining what property constitutes a debtor's estate and what property is exempt (1a, 2c);
    k. distinguishing between Chapter 7, Chapter 11 proceedings, and Chapter 13 plans (1a, 1b, 2c).
5. Demonstrate an understanding of property laws by
    a. explaining ways in which real and personal property can be acquired (1a, 2c);
    b. identifying who has rights to property that has been mislaid, property that has been lost, and property that has been abandoned (1a, 1b, 2c);
    c. describing the three types of ordinary bailments and the rights and duties of a bailee under each type (1a, 2c);
    d. explaining when a bailee's negligence is presumed (1a, 2c);
    e. describing special features of specific bailments, including those involving warehouse companies, common carriers, and innkeepers (1a, 2c);
    f. distinguishing among different possessory and non-possessory interests in real property (1a, 2c);
    g. describing the transfer of ownership by sale, adverse possession, and eminent domain (1a, 2c);
    h. describing landlords' and tenants' liability for injuries occurring on leased property, including those caused by defects on the premises and those caused by crimes of third persons (1a, 2c);
    i. stating what happens when a landlord or tenant transfers his or her rights to leased property during the term of the lease (1a, 1b, 2c);
    j. explaining insurance concepts and terminology, including how insurance is classified and what an insurable interest is (1a, 1b, 2c).

LGLA 2380 - Coop Edcation-Legal Assistant/Paralegal

General

Course Key
11732

Course Rubric	Course Number	Course Title
LGLA	2380	Cooperative Education Legal Assistant/Paralegal

Semester Credit Hours	Lecture Hours	Lab Hours
3	1	20

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-20) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the College, employer, and student. Under the supervision of the College and the employer, the student combines classroom learning with work experience. Includes a lecture component.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Display a professional demeanor, enthusiasm, and dependability in the performance of assigned tasks by
    a. demonstrating the ability to prioritize assignments, appropriately utilize law office policy, and complete assigned tasks accurately within a reasonable time (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. working with the work station filing system through opening new files, organizing active files, and/or closing files pursuant to the directions of the supervisor and subject to the needs of the work station (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. using the work station tickler system, including but not limited to accessing deadlines and/or adding new deadlines as directed by the supervisor and subject to the needs of the work station (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. demonstrating the ability to work cooperatively with other employees of the work station and respond appropriately to the direction of the supervisor, including demonstrating an understanding of the team approach to law office management and the paralegal's role within the system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. acting appropriately in attendance at and participation in depositions, hearings, trials, or mediations as assigned by work station supervisor and pursuant to the availability of such experiences within the work station (1a, 1c, 2a, 2b, 2c).
2. Demonstrate the ability to perform all assigned tasks of a paralegal with skill and knowledge and to communicate effectively orally and in writing by
    a. filing appropriate legal documents at the courthouse as directed by the work station supervisor, pursuant to the needs of the work station (1a, 1b, 1c, 2a, 2b, 2d);
    b. utilizing word processing software and other computer software utilized by the work station to create drafts of assigned initial pleadings, motions, orders, correspondence, and transmittal letters as directed by the work station supervisor and pursuant to the specific needs of the workstation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. assembling pertinent case information, including organizing files, preparing deposition summaries, organizing and cataloguing discovery responses, and preparing trial notebooks at the direction of the work station supervisor and pursuant to the specific needs of the work station (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. demonstrating the ability to explain job skills and duties required during the work, follow the program of duties designed by the student and the work station, and demonstrate improvement in performance in all facets of paralegal duties during the course of the work (1a, 1b, 1c, 2a, 2b, 2c).
3. Carry out all of the required functions of the internship evaluation process by
    a. arranging for one or more office visits and evaluations by the course instructor and work station supervisor (1a, 1c, 2a, 2b);
    b. demonstrating the ability to maintain regular and appropriate contact with course instructor and prepare required documents in conjunction with work station supervisor as required by course instructor (1a, 1b, 1c, 2b, 2c).

LMGT 1319 - Introduction to Business Logistics

General

Course Key
9613

Course Rubric	Course Number	Course Title
LMGT	1319	Introduction to Business Logistics

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)A systems approach to managing activities associated with traffic, transportation, inventory management and control, warehousing, packaging, order processing, and materials handling.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the terms and how they relate to the overall concept of logistics; explain the legal aspects and regulatory agencies as they relate to logistics management; and demonstrate ability to apply decision making techniques based on time, materials, and space.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terms and how they relate to the overall concept of logistics by
    a. identifying terms and definitions used in logistics and supply chain management (1a, 1b, 2c);
    b. explaining the importance of logistics activities to performance of organizations (1a, 1b, 2c);
    c. explaining the details of proper performance measures in logistics (1a, 1b, 2c).
2. Demonstrate an understanding of the legal aspects and regulatory agencies as they relate to logistics management by
    a. identifying terms and definitions used to regulate logistics operations (1a, 1b, 2c);
    b. identifying various local, state, and federal agencies that impact logistics operations (1a, 1b, 2c).
3. Demonstrate the ability to apply decision making techniques based on time, materials, and space by
    a. gathering all needed reference data to solve a complex logistics problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple step decision making process to solve a logistics problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to a logistics problem in a group setting (1a, 1b, 1c, 2b, 2c, 2e).

LMGT 1323 - Domestic & International Transport Mgt

General

Course Key
9614

Course Rubric	Course Number	Course Title
LMGT	1323	Domestic and International Transportation Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An overview of the principles and practices of transportation and its role in the distribution process. Emphasis on the physical transportation systems involved in the United States as well as on global distribution systems. Topics include carrier responsibilities and services, freight classifications, rates, tariffs, and public policy and regulations. Also includes logistical geography and the development of skills to solve logistical transportation problems and issues.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss principles and practices of the physical transportation system as they pertain to distribution; interpret U.S. and global distribution trends, public policy, and regulations; implement decisions based on logistical and transportation issues and problems; describe U.S. and world geography and how they impact transportation logistics; and solve transportation problems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of principles and practices of transportation and their role in the distribution process by
    a. identifying terms and definitions used in transportation and distribution (1a, 1b, 2c);
    b. explaining the importance of different modes of transportation as they apply to distribution of raw materials and finished goods (1a, 1b, 2c);
    c. explaining the details of proper performance measures in transportation (1a, 1b, 2c).
2. Demonstrate an understanding of U.S. and global distribution trends, public policy, regulations, geography, and their impact on transportation by
    a. identifying terms and definitions related to public policy and regulations (1a, 1b, 2c);
    b. explaining the importance of distribution trends to the performance of organizations (1a, 1b, 2c).
3. Demonstrate the ability to apply decision making techniques to solve transportation problems and implement those decisions by
    a. gathering all needed reference data to solve a complex transportation problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple step decision making process to solve a transportation problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to a transportation problem in a group setting (1a, 1b, 2b, 2c, 2e).

LMGT 1325 - Warehouse & Distribution Center Mgt

General

Course Key
9615

Course Rubric	Course Number	Course Title
LMGT	1325	Warehouse and Distribution Center Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Emphasis on physical distribution and total supply chain management. Includes warehouse operations management, hardware and software operations, bar codes, organizational effectiveness, just-in-time manufacturing and continuous replenishment, and third party.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss total supply chain management and its function in the physical distribution system; identify and demonstrate current technology utilized in warehouse management operations; apply the technology utilized in organizational effectiveness including time and money management and acquisition procession; and interpret information with relationship to inventory management.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of total supply chain management and its function in the physical distribution system by
    a. identifying terms and definitions used in warehouse management (1a, 1b, 2c);
    b. explaining the importance of supply chain management as it applies to the distribution of raw materials and finished goods through a warehouse network (1a, 1b, 2c);
    c. explaining the details of proper performance measures in warehouse management (1a, 1b, 2c).
2. Identify current technology utilized in warehouse management operations and how to apply that technology to achieve organizational effectiveness measures by
    a. identifying terms and definitions related to warehouse technology (1a, 1b, 2c);
    b. explaining the importance of technology to the performance of organizations (1a, 1b, 2c).
3. Demonstrate the ability to apply decision making techniques to solve warehouse management problems related to inventory management by
    a. gathering all needed reference data to solve a complex warehouse management problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple step decision making process to solve a warehouse management problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to a warehouse management problem in a group setting (1a, 1b, 2b, 2c, 2e).

LMGT 2334 - Principles of Traffic Management

General

Course Key
9617

Course Rubric
LMGT

Course Number
2334

Course Title
Principles of Traffic Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of the role and functions of a transportation traffic manager within a commercial or public enterprise. Includes training in rate negotiation, carrier and mode selection, carrier service evaluation, quality control, traffic pattern analysis, documentation for domestic and international shipments, claims, hazardous materials movement, and the state, federal, and international environments of transportation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain carrier costing and rate development; apply rate negotiation techniques to meet carrier and shipper needs; evaluate carrier and modal capabilities to meet delivery requirements; and prepare required shipping documentation. Analyze shipping patterns to ensure optimum negotiating position; describe recourse for lost or damaged goods; apply appropriate hazardous materials labeling, packaging, and notifications; and identify and apply state, federal, and international laws and policies governing the transportation industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terms and how they relate to the overall concept of traffic management by
    a. identifying terms and definitions used in traffic management (1a, 1b, 2c);
    b. explaining carrier costing and rate development, applying rate negotiation techniques, evaluating carrier and modal capabilities, and preparing shipping documents (1a, 1b, 2c).
2. Demonstrate an understanding of shipping activities to meet customer requirements by
    a. analyzing shipping patterns to ensure optimum negotiating position (1a, 1b, 2c);
    b. describing the recourse for lost or damaged goods; applying appropriate hazardous materials labeling, packaging, and notifications (1a, 1b, 2c);
    c. identifying and applying state, federal, and international laws and policies governing the transportation industry (1a, 1b, 2c).
3. Demonstrate the ability to apply decision making techniques based on time, materials, and space by
    a. gathering all needed reference data to solve a complex transportation problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. utilizing a multiple step decision making process to solve a transportation problem (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. presenting the solution to a transportation problem in a group setting (1a, 1b, 1c, 2b, 2c, 2e).

LMGT 2371 - Ldrship in Logistics & Supply Chain Mgmt

General

Course Key
14776

Course Rubric
LMGT

Course Number
2371

Course Title
Leadership in Logistics and Supply Chain Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Leadership and its relationship to logistics and supply chain management. Prepares the student with leadership and communication skills required to motivate others in various logistics and supply chain management functions. Required Prerequisite(s): LMGT 2334

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lmgt-2334;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): LMGT 2334

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Determine individual's leadership styles; explain the effects of leadership styles in various supply chain environments; explain the essential leadership skills required in various logistics and supply chain systems; cite examples of leadership techniques in a working environment; and apply the principles of leadership.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a basic understanding of leadership concepts by
    a. defining leadership theories and terminology (1a, 1b, 1e);
    b. explaining the idea and importance of leadership (1a, 1b, 1e, 2a, 2b, 2e, 3e);
    c. contrasting a manager and leader (1a, 1b, 2b, 2c, 2e, 2f);
    d. defining and analyzing leadership styles, traits, skills, and competencies (1a, 1b, 2a, 2b, 2c, 2e, 2f).
2. Demonstrate how to apply leadership principles and motivate people to perform in various logistics and supply chain functions by
    a. determining organizational effectiveness and relationships in different logistics systems (1a, 1b, 2a, 2b, 2c, 2e, 2f);
    b. assessing effective leadership styles and strategies that apply to different logistics systems (1a, 1b, 2a, 2b, 2c, 2e, 2f);
    c. demonstrating leadership, communication, decision-making, and collaborative skills at a functional level (1a, 1b, 2a, 2b, 2c, 2e, 2f).
3. Demonstrate the ability to complete a capstone leadership project by
    a. presenting proposed project idea to the instructor (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f);
    b. presenting completed project to class and industry partners (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 2f).

LMGT 2388 - Internship: Logistics & Materials Mgt

General

Course Key
14778

Course Rubric
LMGT

Course Number
2388

Course Title
Internship: Logistics and Materials Management

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
9

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-9) A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer. Required Prerequisite(s): LMGT 2371

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take lmgt-2371;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): LMGT 2371

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of current practices and systems used in warehousing, transportation, or other logistics functions while working in a job environment by
    a. utilizing academic concepts and theories studied in the classroom to provide perspectives on their use in the workforce (1a, 1b, 2c);
    b. identifying the basic concepts of the organization's work practices as they relate to concepts studied in the classroom (1a, 1b, 2c).
2. Demonstrate the ability to conduct research and analysis on issues in the logistics workforce by
    a. identifying problems and possible solutions (1a, 1b, 2c);
    b. evaluating solutions to determine the best course of action (1a, 1b, 2c);
    c. documenting key learnings and experience in a journal (1a, 1b, 2c);
    d. preparing written and oral reports based on the experience (1a, 1b, 2c);
    e. delivering the report in both oral and written format (1a, 1b, 2c).

LNWK 1301 - Orientation and Line Skill Fundamentals

General

Course Key
12916

Course Rubric
LNWK

Course Number
1301

Course Title
Orientation and Line Skill Fundamentals

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Examination of utility company operations. Topics include company structure, safety and distribution standards handbook, lineman's tools, vocabulary, and work procedures. Discussion of basic electrical systems including the history of power generation and distribution with emphasis on generating plants and substations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe operations of a typical power company; describe customer relations; identify electrical systems, lineman's tools, and work procedures; illustrate system operation and design; and list safe and proper handling of all equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Utilize correct utility terminology by
    a. listing proper personal protective equipment (PPE) (1a);
    b. listing different levels of voltage (1a);
    c. defining OSHA and its role (1a);
    d. explaining the importance of voltage levels (1b, 2c);
    e. explaining the risks of voltage and how to manage them (1b, 2c).
2. Demonstrate an understanding of voltage levels by
    a. identifying the location of labels on equipment listing voltage (1b, 2c);
    b. explaining the different classes of voltage (1b, 2c);
    c. interpreting how the different voltage classes are used (1b, 2c).
3. Demonstrate an understanding of OSHA regulations by
    a. identifying two OSHA standards the utility industry is regulated by (1b, 2c);
    b. explaining different information from other entities (ASTM and ANSI) (1b, 2c);
    c. interpreting the information retrieved from the standards about safety (1b, 2c).
4. Apply knowledge skills by
    a. listing common names of construction materials (1b, 2c);
    b. listing wire sizes and connection types (1b, 2c);
    c. recommending wire sizes for different service applications (1b, 2c, 2d);
    d. demonstrating proper climbing technique and proper use/care of climbing equipment (1c, 2a, 2e).
5. Perform basic voltage calculations by
    a. identifying and testing voltage for single phase use (1b, 2c);
    b. identifying and testing voltage for three phase use (1b, 2c);
    c. identifying and testing for phase rotation (1b, 2c).

LNWK 1311 - Climbing Skills

General

Course Key
14408

Course Rubric	Course Number	Course Title
LNWK	1311	Climbing Skills

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Theory and application of pole climbing. Includes safety, climbing techniques, tool inspection, poles inspection, personal protective equipment, and fall protection.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify hazards on and around poles; demonstrate required safety; and inspect and use personal protective equipment and climbing equipment. Inspect and test wood poles; demonstrate climbing techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Utilize electric utility pole climbing equipment correctly by
    a. recognizing and identifying basic equipment used for climbing wooden poles (PPE) (1a);
    b. demonstrating the proper fit of a body belt (1a);
    c. defining OSHA and their regulations for climbing (1a);
    d. demonstrating the proper fit of climbers (1b, 2c);
    e. listing and explaining the basic components of a safety strap (1b, 2c).
2. Demonstrate use, maintenance, and inspection of climbing equipment by
    a. demonstrating the proper way to wear climbers (1b, 2c);
    b. demonstrating the techniques of sharpening gaffs (1b, 2c);
    c. demonstrating the process of inspecting fall restraint devices (1b, 2c).
3. Demonstrate knowledge of basic climbing techniques, Part 1, by
    a. demonstrating the basic guidelines for storing and attaching a safety strap (1b, 2c);
    b. explaining the basic techniques for belted climbing with fall restraint (1b, 2c);
    c. interpreting the information retrieved from the Standards about climbing safely (1b, 2c).
4. Apply knowledge skills by
    a. listing common names of construction materials (1b, 2c);
    b. listing wire sizes and connection types (1b, 2c);
    c. recommending wire sizes for different service applications (1b, 2c, 2d);
    d. demonstrating proper climbing technique and proper use/care of climbing equipment (1c, 2a, 2e).
5. Demonstrate basic climbing techniques by
    a. using basic techniques for maneuvering around the pole (1b, 2c);
    b. demonstrating the proper techniques for safetying-on and safetying-off (1b, 2c);
    c. demonstrating the basic techniques for maneuvering past an obstacle (1b, 2c).

LNWK 1331 - Transformer Connections

General

Course Key
12917

Course Rubric	Course Number	Course Title
LNWK	1331	Transformer Connections

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) An introduction to basic transformer connections and theory (including basic alternating current (AC) theory) and their direct application to single phase and three phase transformers. Students will study and practice basic transformer connections and fundamentals.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the theory and operation of distribution transformers including basic transformer polarity and impedance; demonstrate the ability to troubleshoot single-phase and three-phase transformer installations while following safety procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Utilize correct transformer terminology by
    a. defining the term “transformer” and identifying some common types of overhead and underground distribution transformers (1a);
    b. describing the designations that are commonly used to identify primary and secondary bushings (1a);
    c. listing and explaining basic information found on transformer name plates (1a) (2c).
2. Demonstrate an understanding of primary systems by
    a. recognizing and explaining the difference between the delta and wye phasor diagrams commonly used to illustrate the two systems (1c, 2a, 2e);
    b. listing and explaining the basic requirements for connecting transformers to delta and wye systems (1b, 2c).
3. Demonstrate an understanding of single-phase transformer connections by
    a. demonstrating and explaining how single-phase transformers can be connected to supply single-phase service (1b, 2c).
4. Demonstrate an understanding of three-phase primary connections by
    a. demonstrating and explaining a three-phase delta primary connection using three single-phase transformers (1b, 2c);
    b. demonstrating and explaining a three-phase wye primary connection using three single-phase transformers (1b, 2c).
5. Demonstrate an understanding of delta secondary connections by
    a. demonstrating and explaining how to make delta secondary connections (1b, 2c).

LNWK 1341 - Distribution Operations

General

Course Key
14409

Course Rubric
LNWK

Course Number
1341

Course Title
Distribution Operations

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) A study of the theoretical and practical operation of electric utility distribution systems. Topics include customer service voltages, capacitors, and coordination of protection equipment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculate customer service voltage; calculate capacitance necessary to control voltage; coordinate protective equipment; describe equipment behavior under load; and identify various types of distribution systems and networks.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Utilize correct utility terminology by
    a. listing proper personal protective equipment (PPE) (1a);
    b. listing different levels of voltage (1a);
    c. defining OSHA and its role (1a);
    d. explaining the importance of voltage levels (1b, 2c);
    e. explaining the risks of voltage and how to manage them (1b, 2c).
2. Demonstrate an understanding of voltage levels by
    a. identifying the location of labels on equipment listing voltage (1b, 2c);
    b. explaining the different classes of voltage (1b, 2c);
    c. interpreting how the different voltage classes are used (1b, 2c).
3. Demonstrate an understanding of OSHA regulations by
    a. identifying two OSHA standards the utility industry is regulated by (1b, 2c);
    b. explaining different information from other entities (ASTM and ANSI) (1b, 2c);
    c. interpreting the information retrieved from the standards about safety (1b, 2c).
4. Apply knowledge skills by
    a. listing common names of construction materials (1b, 2c);
    b. listing wire sizes and connection types (1b, 2c);
    c. recommending wire sizes for different service applications (1b, 2c, 2d);
    d. demonstrating proper climbing technique and proper use/care of climbing equipment (1c, 2a, 2e).
5. Perform basic voltage calculations by
    a. identifying and testing voltage for single phase use (1b, 2c);
    b. identifying and testing voltage for three phase use (1b, 2c);
    c. identifying and testing for phase rotation (1b, 2c).

LNWK 2321 - Live Line Safety

General

Course Key
12921

Course Rubric
LNWK

Course Number
2321

Course Title
Live Line Safety

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Study of cover-up procedures and safety requirements for work on energized electrical circuits. Includes use, care, and inspection of cover-up material, recognizing nominal voltages and energized parts, approach distances, and safety. Recommended Prerequisite: LNWK-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Recommended Prerequisiste

10
A Requirement block where all subrequirements are required

 # TAKE LNWK-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): LNWK 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate safe cover-up and equipment grounding; define all relevant safety rules and procedures; inspect rubber gloves and cover-up material; demonstrate the use of "ground to ground" rubber gloves and cover-up.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of identifying an electrical line condition by
    a. listing proper personal protective equipment (PPE) (1a);
    b. listing different levels of voltage and explaining back feed (1a);
    c. defining the terms "energized," "isolated," and "de-energized" (1a).
2. Explain equipotential grounding by
    a. defining the term "Zone of Equipotential" (1b, 2c);
    b. using OHM's Law to describe the current flow in a de-energized line during a ground fault condition (1b, 2c);
    c. describing how to use grounding equipment to create a zone of equipotential (1b, 2c).
3. Demonstrate an understanding of OSHA regulations by
    a. identifying two OSHA standards the Utility Industry is regulated by (1b, 2c);
    b. explaining different information from other entities (ASTM, ANSI) (1b, 2c);
    c. interpreting the information retrieved from the standards about safety (1b, 2c).
4. Apply knowledge skills by
    a. describing how to perform dielectric test on rubber gloves and other rubber protective equipment (1b, 2c);
    b. describing guidelines for visually inspecting rubber gloves, sleeves, and blankets (1b, 2c);
    c. describing the guidelines for inspecting line hose, rubber hoods, and mechanical jumpers (1b, 2c, 2d).
5. Demonstrate knowledge of fiberglass switching sticks by
    a. describing the safety features of most hot sticks (1b, 2c);
    b. describing the guidelines and steps for care, inspection, and dielectric testing of fiberglass hot sticks (1b, 2c).

LNWK 2322 - Distribution Line Construction

General

Course Key
12922

Course Rubric	Course Number	Course Title
LNWK	2322	Distribution Line Construction

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Study of electric distribution line construction. Includes reading staking sheets and framing specifications, tailboard discussions, pole framing and setting, installing conductors, transformers and other line equipment, and OSHA and NESC regulations. Recommended Prerequisite: LNWK-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Recommended Prerequisite

10
A Requirement block where all subrequirements are required

Take LNWK-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): LNWK 1311

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: List equipment and material needed from staking sheet information; describe safe work procedures and tailboard discussion; define framing specifications; and demonstrate pole framing. Demonstrate pole setting procedures, conductor and equipment installations; and all relevant safety rules and procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of planning a job task and conducting a "tailboard conference" by
    a. listing proper personal protective equipment (PPE) (1a);
    b. describing the basic tasks associated with the installation and removal of an electric utility distribution line (1a);
    c. identifying and describing some of the equipment used in distribution line installation (1a).
2. Demonstrate knowledge of safety procedures for hazards identified in the tailboard by
    a. describing the basic safety considerations associated with the four basic tasks of a distribution electric line installation and removal (1b, 2c).
3. Demonstrate an understanding of OSHA regulations by
    a. identifying two OSHA standards the Utility Industry is regulated by (1b, 2c);
    b. explaining different information from other entities (ASTM, ANSI) (1b, 2c);
    c. interpreting the information retrieved from the Standards about safety (1b, 2c).
4. Apply knowledge skills by
    a. describing how to read and understand an engineer print (1b, 2c);
    b. describing guidelines for visually inspecting job site for hazardous conditions (1b, 2c);
    c. describing the guidelines for calling and documenting 811 utilities facilities locating procedures before digging (1b, 2c, 2d).
5. Demonstrate an understanding of the order in which line construction tasks flow by
    a. describing and identifying the use of a Right of Way (1b, 2c);
    b. describing the difference between a subdivision developer Right of Way and a Right of Way obtained by eminent domain (1b, 2c).

LNWK 2324 - Troubleshooting Distribution Systems

General

Course Key
12923

Course Rubric	Course Number	Course Title
LNWK	2324	Troubleshooting Distribution Systems

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Study of power outages and voltage complaints on distribution systems. Includes lockout-tagout procedures, safety grounds, backfeed, induced voltage, causes of outages, and analyzing voltage complaints.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe causes of power outages; illustrate lockout-tagout procedures; and describe step and touch potentials. Describe backfeed and induced voltages; and calculate service size from customer load. Explain causes of power outages and voltage problems; explain grounding procedures; and all relevant safety rules and procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand the purpose of troubleshooting by
    a. listing proper personal protective equipment (PPE) (1a);
    b. describing the basic tasks associated with troubleshooting (1a);
    c. identifying and describing some of the equipment used in distribution line troubleshooting (1a).
2. Demonstrate knowledge of safety procedures for hazards identified in troubleshooting tasks by
    a. describing the basic safety considerations associated with the four basic tasks of a distribution electric line troubleshooting (1b, 2c).
3. Demonstrate an understanding of OSHA regulations by
    a. identifying OSHA standards the Electric Utility Industry is regulated by (1b, 2c);
    b. explaining different information from other entities (ASTM, ANSI) (1b, 2c);
    c. interpreting the information retrieved from the Standards about safety (1b, 2c).
4. Apply knowledge skills by
    a. describing how to read and understand an engineer print (1b, 2c);
    b. describing guidelines for visually inspecting job site for hazardous conditions (1b, 2c);
    c. describing the guidelines for calling and documenting 811 utilities facilities locating procedures before digging (1b, 2c, 2d).
5. Demonstrate an understanding of the order in which line troubleshooting tasks flow by
    a. describing the typical layout of underground distribution systems (1b, 2c);
    b. describing how to troubleshoot, isolate, and use a URD loop system to maintain service when there is an underground cable fault (1b, 2c);
    c. demonstrating an understanding of how to read system-engineering prints to patrol, isolate, sectionalize, and test overhead lines when an outage occurs (1b, 2c);
    d. demonstrating an understanding of the meter and service structure, parts, and testing for causes of secondary outages (1b, 2c).

LTCA 1311 - Intro to Long Term Care Administration

General

Course Key
73

Course Rubric
LTCA

Course Number
1311

Course Title
Introduction to Long-Term Care Administration

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An overview of the long term care industry. Includes a survey of the history and philosophy of long term care administration. Provides an introduction to regulatory standards and statutes.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe demographic factors driving the long term care industry; assess the continuum of health care in the United States; differentiate the types of long term care; integrate resident rights into care giving; and utilize community resources in meeting resident needs.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the history and structure of the long term care industry by
    a. describing demographic factors driving the long term care industry (1a, 1b, 2c, 2d, 3e);
    b. discussing the continuum of health care in the United States (1a, 1b, 1c, 2c, 2d);
    c. identifying the principal stakeholders of nursing facilities (1a, 1b, 2a, 2c);
    d. identifying long term care administration terminology (1a, 1b);
    e. identifying marketing challenges affecting long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. proposing methods to improve market share and revenues of long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    g. describing the U.S. health delivery system, including its purpose, organization, and structure (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    h. tracing the major phases and historical milestones of the development of the long term care industry in the U.S. (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    i. describing the types of long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    j. explaining licensing requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d).

LTCA 1312 - Resident Care in Long Term Care Facility

General

Course Key
79

Course Rubric
LTCA

Course Number
1312

Course Title
Resident Care in the Long-Term Care Facility

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of the delivery of services to residents of long term care facilities including ethical considerations and quality of life issues. Required Prerequisite: LTCA-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Ltca-1311
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): LTCA 1311

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Monitor and evaluate clinical assessment and intervention methods to facilitate quality of care; integrate resident rights into all aspects of resident care; implement strategies to promote compliance with applicable federal, state, and local standards and regulations; and develop strategies to promote resident quality of life.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand the processes and strategies required to deliver quality services to long term care residents by
    a. integrating resident rights as an underlying principle of resident care (1a, 1b, 1c, 2b, 2d);
    b. describing and discussing the effects of aging from a clinical perspective (1a, 1b, 2b, 2c, 2d);
    c. incorporating the resident assessment protocol to develop a comprehensive plan of care for residents (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. comprehending the use of quality indicators for clinical performance measurement (1a, 1b, 1c, 2a, 2b, 2d, 2e);
    e. examining issues impacting resident quality of life, quality of care, and treatment in the long term care facility (1a, 1b, 2a, 2c, 2d);
    f. defining laws regarding the Self-Determination Act and advanced directives (1a, 1b, 1c, 2a, 2b, 2d);
    g. describing the criteria for establishing a medical ethics committee (1a, 1b, 2a, 2c, 2d).

LTCA 1313 - Organization/Mgt Long Term Care Facilit

General

Course Key
15573

Course Rubric
LTCA

Course Number
1313

Course Title
Organization and Management of Long Term Care Facilities

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An overview of the functional organizational structures common to long-term health care facilities. Includes an examination of the role of the long-term care facility administrator in the organization and management of long-term care facilities. Required Prerequisite: LTCA-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take LTCA-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): LTCA 1311

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply principles of leadership and management to long term care facilities; develop an organizational structure for a long term care facility; apply communication principles in the long term care facility; and articulate the requirements for continued professional development.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of a human resources management system to operate a long term care facility by
    a. discussing the role of the administrator in providing oversight in the long term care facility (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. describing the functions of long term care departments in correlation to the overall operation of the long term care facility (1a, 1b, 2a, 2b, 2c, 2d);
    c. developing strategies to improve the workplace environment through the application of leadership principles and management practices (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. composing performance evaluations and make recommendations for improved employee proficiency (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. explaining components of effective leadership in a long term care environment (1a, 1b, 1c, 2a, 2b, 2c, 2d).

LTCA 2314 - Long Term Care Law

General

Course Key
85

Course Rubric
LTCA

Course Number
2314

Course Title
Long-Term Care Law

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of federal, state, and local statutes and regulations affecting the long term care industry. Required Prerequisite: LTCA-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take LTCA-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): LTCA 1311

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Compare entities regulating the long term care facility; analyze compliance requirements impacting long term care facilities; implement strategies for legal protection; examine ethical considerations of resident care, particularly end-of-life decisions; and describe the processes by which regulatory and statutory changes are promulgated in the industry including political involvement.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Analyze required federal, state, and local statutes and regulations to operate a long term care facility by
    a. identifying the federal, state, and local licensing and regulatory agencies for long term care facilities and the statutory sources of their authority (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. developing strategies for risk management implementation in long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. explaining the components necessary to negotiate a contract (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. applying regulatory requirements to leadership and management incidences in long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. comprehending the role of law in the American society (1a, 1b, 1c, 2a, 2b, 2c);
    f. using legal terminology relevant in long term care facilities (1a, 1b, 1c, 2a, 2b, 2c);
    g. defining federal and state entities that govern long term care facilities (1a, 1b, 1c, 2a);
    h. explaining interpretations of federal/state laws that govern the operation of long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    i. discussing the phases of the survey process (1a, 1b, 1c, 2a, 2b, 2c, 2d).

LTCA 2315 - Financial Mgt of Long Term Care Facility

General

Course Key
90

Course Rubric
LTCA

Course Number
2315

Course Title
Financial Management of Long-Term Care Facilities

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). A study of the techniques used in the financial management of the long-term care facility including special accounting requirements of Medicare, Medicaid, and other third-party payor sources. Also covers strategies to promote financial sustainability. Required Prerequisite: LTCA-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take LTCA-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): LTCA 1311

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply generally accepted accounting principles; construct a budget; manage a budget; implement operational decisions based on analysis of financial information; apply safeguards to ensure resident rights in the management of financial resources and information; and implement risk management strategies to promote financial sustainability.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Prepare a financial statement by
    a. defining basic accounting terms and principles (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating knowledge of the capital structure, operating cycle, necessary cash flows, and prospective payment considerations influencing nursing facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. distinguishing between the principal coverage, financing, and reimbursement systems for third party payor sources (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. explaining key financial and quantitative indicators essential for managing budgets to achieve optimal productivity and ensure the financial health of the long term care facility (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. describing the Generally Accepted Accounting Principles (GAAP) (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

LTCA 2660 - Clinical-Hospital/Health Facilities Adm

General

Course Key
93

Course Rubric
LTCA

Course Number
2660

Course Title
Clinical - Hospital and Health Care Facilities Administration/Management

Semester Credit Hours
6

Lecture Hours
0

Lab Hours
31

Course Classification
Workforce Education Course Manual (WECM)

Description
(6-0-31). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

LTCA-1311 LTCA-1312 LTCA-1313 LTCA-2314 LTCA-2315
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply leadership principles and management practices designed to operate a long term care facility by
    a. tracking federal, state, and local regulatory updates for implementation (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. formulating tools for competency assessment (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. developing policies and procedures for departments to implement a quality assurance and assessment plan (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. explaining resident care management policies and procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. explaining administrative policies and procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. describing the role of guidelines in designing and evaluating resident care systems in long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d).

LTCA 2661 - Clinical-Hospital/Health Facilities Adm

General

Course Key
98

Course Rubric
LTCA

Course Number
2661

Course Title
Clinical - Hospital and Health Care Facilities Administration/Management

Semester Credit Hours
6

Lecture Hours
0

Lab Hours
31

Course Classification
Workforce Education Course Manual (WECM)

Description
(6-0-31). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

1. Apply leadership principles and management practices designed to operate a long term care facility by
    a. explaining factors that undermine quality of care for residents in long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. applying regulatory requirements to management situations in long term care facilities (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. analyzing financial data for decision making (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. developing action plans to address deficient regulatory practices within departments (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. demonstrating the ability to recognize problems within the scope of a long term care facility, seek out evidence based sources to compose solutions, and implement plans of action (1a, 1b, 1c, 2a, 2b, 2c, 2d).

MATH 0132 - Coreq Contemporary Math

General

Course Key
16121

Course Rubric
MATH

Course Number
0132

Course Title
Corequisite Contemporary Math

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-1-0) This supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. If successful in the accompanying credit course, this satisfies a developmental math requirement. Required Prerequisite(s): TSI MATH score of 910-949 with a diagnostic score of 3 or MATH 0090 Required Co-requisite(s): MATH-1332

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): TSI MATH score of 910-949 with a diagnostic score of 3 or MATH 0190

Required Co-requisite(s): MATH-1332

MATH 0142 - Coreq Elementary Statistical Methods

General

Course Key
16122

Course Rubric
MATH

Course Number
0142

Course Title
Corequisite Elementary Statistics

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-1-0) This supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. If successful in the accompanying credit course, this satisfies a developmental math requirement. Required Prerequisite(s): TSI MATH score of 910-949 with diagnostic score of 3 or MATH 0090Required Co-requisite: MATH 1342

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): TSI MATH score of 910-949 with diagnostic score of 3 or MATH 0190

Required Co-requisite: MATH 1342

MATH 0190 - Adult Education Math

General

Course Key
16536

Course Rubric
MATH

Course Number
0190

Course Title
Adult Education Math

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-1-0) Basic arithmetic operations (whole numbers, fractions, mixed numbers, decimals and signed numbers), exponents, percents and proportions, metric system, geometry of measurement, expressions and equations with variables, and statistical graphs. A Computer software will be used in this course. This is an Adult Education course and cannot be used to fulfill degree requirements or to qualify for federal aid, including VA educational benefits. It is designed to review basic skills and prepare students for MATH 0132 + MATH 1332 or MATH 0142 + MATH 1342.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

No Requirements

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will:

1. Perform operations with whole numbers, solve problems using whole numbers, and use properties of whole numbers.
2. Understand and perform operations with fractions and mixed numbers.
3. Solve problems involving decimals, proportions, and percents.
4. Use geometry, measurement, and data analysis to solve problems.
5. Perform operations with real numbers and apply properties of real numbers.
6. Solve linear equations and inequalities.
7. Graph linear functions.

MATH 0214 - Coreq College Algebra

General

Course Key
16123

Course Rubric
MATH

Course Number
0214

Course Title
Corequisite College Algebra

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-2-0) This course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics. It is designed to support students concurrently enrolled in MATH-1314 by providing additional focus on MATH-1314 topics and review of prerequisite topics as needed. If successful in the accompanying credit course, this satisfies a developmental math requirement. Required Prerequisite(s): TSI MATH score of 910-949 with a diagnostic score of 4-5 or, MATH-1332 or MATH 1342, with a minimum grade of C. Required Co-requisite(s): MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

This is a corequisite course and requires registration in a developmental corequisite section.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for Math prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(12870) or MATH-0116; Minimum grade C; # Take MATH-0362(12860) or MATH-0350; Minimum grade C; # Take MATH-DEV2 MATH-DEV1 MATH-PASS or MATH-PATH; # Take MATH-NCR1 MATH-DV22; # Take MATH-NCR1 MATH-DV23; # Take MATH-1332(13011) or MATH-1342(12188); Minimum grade C;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 0224 - Coreq Math Business/Social Science

General

Course Key
16124

Course Rubric
MATH

Course Number
0224

Course Title
Corequisite Math Business/Social Sciences

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-2-0) This course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics. It is designed to support students concurrently enrolled in MATH-1324 by providing additional focus on MATH-1324 topics and review of prerequisite topics as needed. If successful in the accompanying credit course, this satisfies a developmental math requirement. Required Prerequisite(s): TSI MATH score of 910-949 with a diagnostic score of 4-5 or, MATH-1332 or MATH 1342, with a minimum grade of C. Required Co-requisite(s): MATH-1324

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

This is a corequisite course and requires registration in a developmental corequisite section.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take MATH-1324;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for Math prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(10156) or MATH-0116; Minimum grade C; # Take MATH-0362(10159) or MATH-0350; # Take MATH-DEV2 MATH-DEV1 MATH-PASS or MATH-PATH; # Take MATH-NCR1 MATH-DV22; # Take MATH-NCR1 MATH-DV23; # Take MATH-1332(13011) or MATH-1342(12188); Minimum grade C;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 1314 - College Algebra

General

Course Key
16125

Course Rubric
MATH

Course Number
1314

Course Title
College Algebra

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Required Prerequisite: TSI Met in Math

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

MATH 1314 - College Algebra

General

Course Key
16126

Course Rubric
MATH

Course Number
1314

Course Title
Corequisite College Algebra

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Required Prerequisite: TSI MATH score of 910-949 with diagnostic score of 4-5 or MATH-1332 with a minimum grade of C or MATH-1342 with a minimum grade of C Required Co-Requisite: MATH-0214

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

This is a House Bill 2223 corequisite course and requires registration in a developmental corequisite section.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(10156) or MATH-0116; Minimum grade C; # Take MATH-0362(10159) or MATH-0350; Minimum grade C; # Take MATH-DEV2 or MATH-PATH; # Take MATH-1332(13011) MATH-1342(12188) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-DV22; # Take MATH-NCR1 MATH-DV23; #TAKE MATH-PASS;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

A Co-Requisite of MATH-0214 will be required with this course.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # Take MATH-0362 or MATH-0214;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 1316 - Plane Trigonometry

General

Course Key
16127

Course Rubric
MATH

Course Number
1316

Course Title
Plane Trigonometry

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included. Required Prerequisite: MATH-1314 with a minimum grade of C or appropriate score on the college level mathematics placement test.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-1314(129); Minimum grade C; # Take MATH-1316(136); Minimum grade F; # Take MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-LVL1 or MATH-LVL2; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

MATH 1324 - Mathematics Business & Social Sciences

General

Course Key
16129

Course Rubric
MATH

Course Number
1324

Course Title
Mathematics for Business and Social Sciences

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value. Required Prerequisite: TSI Met Math

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

MATH 1324 - Mathematics Business & Social Sciences

General

Course Key
16128

Course Rubric
MATH

Course Number
1324

Course Title
Corequisite Mathematics Business/Social Sciences

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value. Required Prerequisite(s): TSI MATH score of 910-949 with diagnostic score of 4-5 or MATH-1332 with a minimum grade of C or MATH-1342 with a minimum grade of C Required Co-requisite(s): MATH-0224

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

This is a House Bill 2223 corequisite course and requires registration in a developmental corequisite section.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0361(10156) or MATH-0116; Minimum grade C; # Take MATH-0362(10159) or MATH-0350; Minimum grade F; # Take MATH-DEV2 or MATH-PATH; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-DV22; # Take MATH-NCR1 MATH-DV23; # Take MATH-PASS;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

A Co-Requisite of MATH-0224 will be required with this course.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # Take MATH-0362 or MATH-0224;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 1325 - Calculus for Business & Social Sciences

General

Course Key
16045

Course Rubric
MATH

Course Number
1325

Course Title
Calculus for Business and Social Sciences

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. This course is not a substitute for MATH-2413, Calculus I. Required Prerequisite: MATH-1324 or MATH-1314 with minimum grade of C

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-1314(129) or MATH-1324(9765); Minimum grade C; # Take MATH-1325(10493); # Take MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-LVL1 or MATH-LVL2;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 1332 - Contemporary Math (Quantitative Reason)

General

Course Key
16131

Course Rubric	Course Number	Course Title
MATH	1332	Corequisite Mathematics (Quantitative Reasoning)

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, functions, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. Required Prerequisite(s): TSI MATH score of 910-949 with diagnostic score of 3-5 or credit in MATH-0090 Required Co-requisite(s): MATH-0132

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): TSI MATH score of 910-949 with diagnostic score of 3-5 or credit in MATH-0190

Required Co-requisite(s): MATH-0132

Course Learning Outcomes

Course Learning Outcomes
Course goals and learning outcomes support the Foundational Component Areas defined by the Texas Higher Education Coordinating Board. Course goals are linked to the respective Core Curriculum Competencies: Critical Thinking Skills, Communication Skills, and Empirical and Quantitative Skills. Specific competencies are identified in designated course goals and learning outcomes.

Upon successful completion of this course, students will:

1. Apply the language and notation of sets by
    a. producing representations of sets with word description, roster, and set builder notation;
    b. identifying finite and infinite sets;
    c. explaining the meaning of the empty set and the universal set;
    d. determining the number of subsets and proper subsets of a given set;
    e. using Venn diagrams to find intersections, unions, and complements, and to solve problems.
2. Determine the validity of an argument or statement and provide mathematical evidence by
    a. identifying English sentences that are statements;
    b. converting between English statements and symbolic forms;
    c. writing negations of quantified statements;
    d. identifying compound statements;
    e. constructing truth tables to determine the logical values of compound statements.
3. Solve problems in mathematics of finance by
    a. computing simple and compound interest;
    b. solving problems involving installment buying and credit card loans;
    c. computing interest costs for a fixed rate mortgage;
    d. determining monthly mortgage payments using a formula.
4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems by
    a. using the fundamental counting principle to determine the number of possible outcomes in a given situation;
    b. distinguishing between permutation and combination problems;
    c. solving problems using combination and permutation formulas;
    d. computing theoretical and empirical probabilities;
    e. computing probabilities of simple and compound events.
5. Interpret and analyze various representations of data by
    a. determining the mean, median, mode, and midrange for a data set;
    b. solving problems involving measures of central tendency.
6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.
7. Recognize and apply algebraic relations, functions, and graphs by
    a. identifying algebraic relations and functions;
    b. obtaining information about a function from its graph.
8. Critical Thinking Skills: Demonstrate the ability to evaluate, synthesize, and perform inquiry and analysis of information in mathematical problems by
    a. differentiating between the different types of consumer loan formulas;
    b. applying an interest formula to a real-world problem.
9. Communication Skills: Demonstrate the ability to communicate orally, visually, and/or in writing using mathematical language and symbols by
    a. analyzing and interpreting Venn Diagrams;
    b. illustrating the steps in constructing a truth table.
10. Empirical and Quantitative Skills: Manipulate and analyze numerical data or observable facts in making informed conclusions by
    a. finding a measure of central tendency for a data set;
    b. calculating the theoretical probability of an event.

MATH 1332 - Contemporary Math (Quantitative Reason)

General

Course Key
16130

Course Rubric	Course Number	Course Title
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, functions, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. Required Prerequisite: TSI Met in Math

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite: TSI Met in Math

Course Learning Outcomes

Course Learning Outcomes
Course goals and learning outcomes support the Foundational Component Areas defined by the Texas Higher Education Coordinating Board. Course goals are linked to the respective Core Curriculum Competencies: Critical Thinking Skills, Communication Skills, and Empirical and Quantitative Skills. Specific competencies are identified in designated course goals and learning outcomes.

Upon successful completion of this course, students will:

1. Apply the language and notation of sets by
    a. producing representations of sets with word description, roster, and set builder notation;
    b. identifying finite and infinite sets;
    c. explaining the meaning of the empty set and the universal set;
    d. determining the number of subsets and proper subsets of a given set;
    e. using Venn diagrams to find intersections, unions, and complements, and to solve problems.
2. Determine the validity of an argument or statement and provide mathematical evidence by
    a. identifying English sentences that are statements;
    b. converting between English statements and symbolic forms;
    c. writing negations of quantified statements;
    d. identifying compound statements;
    e. constructing truth tables to determine the logical values of compound statements.
3. Solve problems in mathematics of finance by
    a. computing simple and compound interest;
    b. solving problems involving installment buying and credit card loans;
    c. computing interest costs for a fixed rate mortgage;
    d. determining monthly mortgage payments using a formula.
4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems by
    a. using the fundamental counting principle to determine the number of possible outcomes in a given situation;
    b. distinguishing between permutation and combination problems;
    c. solving problems using combination and permutation formulas;
    d. computing theoretical and empirical probabilities;
    e. computing probabilities of simple and compound events.
5. Interpret and analyze various representations of data by
    a. determining the mean, median, mode, and midrange for a data set;
    b. solving problems involving measures of central tendency.
6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.
7. Recognize and apply algebraic relations, functions, and graphs by
    a. identifying algebraic relations and functions;
    b. obtaining information about a function from its graph.
8. Critical Thinking Skills: Demonstrate the ability to evaluate, synthesize, and perform inquiry and analysis of information in mathematical problems by
    a. differentiating between the different types of consumer loan formulas;
    b. applying an interest formula to a real-world problem.
9. Communication Skills: Demonstrate the ability to communicate orally, visually, and/or in writing using mathematical language and symbols by
    a. analyzing and interpreting Venn Diagrams;
    b. illustrating the steps in constructing a truth table.
10. Empirical and Quantitative Skills: Manipulate and analyze numerical data or observable facts in making informed conclusions by
    a. finding a measure of central tendency for a data set;
    b. calculating the theoretical probability of an event.

MATH 1342 - Elementary Statistical Methods

General

Course Key
16132

Course Rubric
MATH

Course Number
1342

Course Title
Corequisite Elementary Statistical Methods

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. Required MATH Prerequisite(s): TSI MATH score of 910-949 with diagnostic score of 3-5 or credit in MATH-0090 Required INRW Prerequisite(s): TSI Met in INRW Required Co-requisite(s): MATH-0142

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): TSI MATH score of 910-949 with diagnostic score of 3-5 or credit in MATH-0190

Required INRW Prerequisite(s): TSI Met in INRW

Required Co-requisite(s): MATH-0142

Course Learning Outcomes

Course Learning Outcomes
Course goals and learning outcomes support the Foundational Component Areas defined by the Texas Higher Education Coordinating Board. Course goals are linked to the respective Core Curriculum Competencies: Critical Thinking Skills, Communication Skills, and Empirical and Quantitative Skills. Specific competencies are identified in designated course goals and learning outcomes.

Upon successful completion of this course, students will:

1. Explain the use of data collection and statistics as tools to reach reasonable conclusions by
    a. defining statistics;
    b. distinguishing between qualitative and quantitative variables;
    c. distinguishing between discrete and continuous variables;
    d. explaining the difference between an observational study and an experiment.
2. Recognize, examine, and interpret the basic principles of describing and presenting data by
    a. constructing frequency and relative frequency distribution tables for a data set;
    b. constructing representations of data graphically using bar graphs, histograms, pie charts, and/or other types of statistical graphs;
    c. interpreting data presented in graphs.
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics by
    a. computing the probability of an event;
    b. computing probabilities using the complement rule;
    c. computing probabilities using the addition and multiplication rules.
4. Explain the role of probability in statistics.
5. Examine, analyze, and compare various sampling distributions for both discrete and continuous random variables by
    a. constructing a probability distribution;
    b. finding the mean, variance, standard deviation, and expected value for a discrete random variable;
    c. describing the properties of the normal distribution;
    d. finding probabilities for a normally distributed random variable;
    e. finding the z-scores that correspond to the probability of a normally distributed random variable.
6. Describe and compute confidence intervals by
    a. constructing a confidence interval about a population parameter;
    b. computing the required sample size for finding a confidence interval.
7. Solve linear regression and correlation problems by
    a. determining the mean, median, and mode for a data set;
    b. computing the range, variance, and standard deviation of a data set;
    c. computing measures of position such as z-scores, quartiles, and/or percentiles for a data set;
    d. computing the approximate mean, variance, and standard deviation for grouped data;
    e. computing the linear correlation coefficient;
    f. finding the least squares regression line.
8. Perform hypothesis testing using statistical methods by
    a. determining the null and alternative hypotheses for a hypothesis test;
    b. performing an appropriate hypothesis test;
    c. stating the appropriate conclusion for a hypothesis test.
9. Critical Thinking Skills: Demonstrate the ability to evaluate, synthesize, and perform inquiry and analysis of information in mathematical problems by
    a. identifying possible sources of bias in a statistical study and explaining how to reduce bias;
    b. demonstrating understanding of inferential statistics by constructing confidence intervals and/or performing hypothesis testing.
10. Communication Skills: Demonstrate the ability to communicate orally, visually, and/or in writing using mathematical language and symbols by
    a. constructing graphical representations of data;
    b. translating real-world problems into mathematics problems that involve statistics and probability.
11. Empirical and Quantitative Skills: Manipulate and analyze numerical data or observable facts in making informed conclusions by
    a. calculating measures of central tendency, variation, and position;
    b. computing empirical and theoretical probabilities.

MATH 1342 - Elementary Statistical Methods

General

Course Key
16133

Course Rubric
MATH

Course Number
1342

Course Title
Elementary Statistical Methods

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. Required Prerequisite(s): TSI Met in INRW and TSI Met in Math

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-PASS; # Take MATH-1314(11733) MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-1314(12859) MATH-1324(12867) MATH-1332(13012) or MATH-1342(12869); Minimum grade C; # Take MATH-NCR1 MATH-CR01;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take Inrw-0399(9631) INRW-0114 or ESOL-0309(8534) # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

MATH 1350 - Mathematics for Teachers I

General

Course Key
16134

Course Rubric
MATH

Course Number
1350

Course Title
Mathematics for Teachers I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numeration systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification. Required Prerequisite: MATH-1314 with a minimum grade of C

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-1314(129); Minimum grade C; # Take MATH-1316(12229) MATH-1325(10493) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-LVL1 or MATH-LVL2; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 1351 - Mathematics for Teachers II

General

Course Key
16135

Course Rubric
MATH

Course Number
1351

Course Title
Mathematics for Teachers II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification. Required Prerequisite: MATH-1350 and MATH-1314 with a minimum grade of C.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-1350(11737); Minimum grade C; # Take MATH-1316(12229) MATH-1324(11734) MATH-1325(10493) MATH-2318 MATH-2320(9619) MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 2305 - Discrete Mathematics

General

Course Key
16136

Course Rubric
MATH

Course Number
2305

Course Title
Discrete Mathematics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A course designed to prepare math, computer science, and engineering majors for a background in abstraction, notation, and critical thinking for the mathematics most directly related to computer science. Topics include: logic, relations, functions, basic set theory, countability and counting arguments, proof techniques, mathematical induction, combinatorics, discrete probability, recursion, sequence and recurrence, elementary number theory, graph theory, and mathematical proof techniques. Required Prerequisite(s): MATH-2413 with a minimum grade of C

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-2413; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MATH 2318 - Linear Algebra

General

Course Key
16137

Course Rubric
MATH

Course Number
2318

Course Title
Linear Algebra

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Introduces and provides models for application of the concepts of vector algebra. Topics include finite dimensional vector spaces and their geometric significance; representing and solving systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion; matrices; determinants; linear transformations; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Required Prerequisite: MATH-2414 with minimum grade of C

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-2414(202); Minimum grade C; # Take MATH-2415 or MATH-2421;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 2320 - Differential Equations

General

Course Key
16138

Course Rubric
MATH

Course Number
2320

Course Title
Differential Equations

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems. Required Prerequisite: MATH-2414 with minimum grade of C

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-2414(8094); Minimum grade C; # Take MATH-2415 or MATH-2421;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 2412 - Pre-Calculus Math

General

Course Key
16139

Course Rubric
MATH

Course Number
2412

Course Title
Pre-Calculus Math

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-4-1) In-depth combined study of algebra, trigonometry, and other topics for calculus readiness. Required Prerequisite: MATH-1314 or MATH-1316 with a minimum grade of C or appropriate score on the college-level mathematics placement test.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-1314(9762) or MATH-1316(9763); Minimum grade C; # Take MATH-1324(11734) MATH-1325(10493) MATH-1350(12231) MATH-1351(12236) MATH-2318 MATH-2320(9619) MATH-2412(12237) MATH-2413(12238) MATH-2414(9775) MATH-2415 or MATH-2421; # Take MATH-LVL1 or MATH-LVL2;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 2413 - Calculus I

General

Course Key
16140

Course Rubric
MATH

Course Number
2413

Course Title
Calculus I

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-4-1) Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Required Prerequisite: MATH-2412 with a minimum grade of C or appropriate score on the college-level mathematics placement test.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-2412(12237); Minimum grade C; # Take MATH-2414(9775) MATH-2415 or MATH-2421; # Math-lvl2;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

MATH 2414 - Calculus II

General

Course Key
16141

Course Rubric
MATH

Course Number
2414

Course Title
Calculus II

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-4-0) Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals. Required Prerequisite: MATH-2413 with a minimum grade of C

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-2513(205) or MATH-2413(9970); Minimum grade C; # Take MATH-2320(9619) MATH-2415 or MATH-2421;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MATH 2415 - Calculus III

General

Course Key
16142

Course Rubric
MATH

Course Number
2415

Course Title
Calculus III

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-4-0) Advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobians; application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes' Theorem. Required Prerequisite: MATH-2414 with a minimum grade of C

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-2414(202); Minimum grade C; # Take MATH-2415 MATH-2320(9619) or MATH-2421;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

MCHN 1338 - Basic Machine Shop I

General

Course Key
13610

Course Rubric
MCHN

Course Number
1338

Course Title
Basic Machine Shop I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) A course that introduces the student to machining fundamentals. The student will use basic machine tools including the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Required Prerequisites: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # Take DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate setup and use of basic machine tools; apply good housekeeping, and employ proper safety; use precision instruments to perform bench work including part layout, drilling, reaming, tapping, employ drilling, reaming, hole machining processes; demonstrate tooling maintenance, and equipment maintenance.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the safety procedures for setup and operation of CNC machinery (lathes, mills, drills, saws, and grinders) by
    a. demonstrating required safety procedures for setup and operation of CNC machines (1a, 1b, 2d, 2e);
    b. demonstrating proper safety procedures for handling cutting tools on a CNC machine (1a, 1b, 2d, 2e);
    c. demonstrating proper safety procedures for handling materials used in a CNC machine (1a, 1b, 2d, 2e).
2. Demonstrate an understanding of the use of precision instruments by
    a. laying out parts (1a, 1b, 2d, 2e);
    b. locating hole centers and surfaces (1a, 1b, 2d, 2e);
    c. setting up power saw for cut off operation (1a, 1b, 2d, 2e);
    d. demonstrating tooling maintenance and handling of hazardous materials (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of the setup and operation of a CNC machine by
    a. setting up power saws, drill presses, and bench grinders (1a, 1b, 2d, 2e);
    b. demonstrating the setup of a lathe (1a, 1b, 2d, 2e);
    c. demonstrating the setup of a milling machine (1a, 1b, 2d, 2e);
    d. demonstrating proper preventive maintenance for the machines (1a, 1b, 2d, 2e);
    e. dry running a CNC program (1a, 1b, 2d, 2e);
    f. running a live CNC program (1a, 1b, 2d, 2e);
    g. checking part against blueprint specification (1a, 1b, 2d, 2e).

MCHN 2303 - Fundamentals of CNC Machine Controls

General

Course Key
13611

Course Rubric	Course Number	Course Title
MCHN	2303	Fundamentals of Computer Numerical Controlled (CNC) Machine Controls

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Programming and operation of Computer Numerical Controlled (CNC) machine shop equipment. Required Prerequisites: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # Take DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate operations of CNC machine controls; compare and contrast the differences between conventional and CNC machines; and utilize CNC machine equipment for machining operations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the safety procedures for setup and operation of CNC machinery by
    a. demonstrating required safety procedures for setup and operation of CNC machines (1a, 1b, 2d, 2e);
    b. demonstrating proper safety procedures for handling cutting tools on a CNC machine (1a, 1b, 2d, 2e);
    c. demonstrating proper safety procedures for handling materials used in a CNC machine (1a, 1b, 2d, 2e).
2. Demonstrate an understanding of the working environment of the CNC machine by
    a. labeling the axis of travel on a CNC machine (1a, 1b, 2d, 2e);
    b. explaining how the CNC code translates into movement on the CNC machine (1a, 1b, 2d, 2e);
    c. describing the EDM process (1a, 1b, 2d, 2e);
    d. describing the different materials used for cutting tools (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of the setup and operation of a CNC machine by
    a. explaining part zero location and why it is important for setup and programming part shapes (1a, 1b, 2d, 2e);
    b. demonstrating the procedure for setting part zero (1a, 1b, 2d, 2e);
    c. setting tool length offsets (1a, 1b, 2d, 2e);
    d. demonstrating the ability to load and delete programs from a CNC machine (1a, 1b, 2d, 2e);
    e. dry running a CNC program (1a, 1b, 2d, 2e);
    f. running a live CNC program (1a, 1b, 2d, 2e);
    g. checking part against blueprint specification (1a, 1b, 2d, 2e).
4. Demonstrate an understanding of the basics of G and M code languages by
    a. explaining G and M code (1a, 1b, 2d, 2e);
    b. calculating proper feeds and speeds for given cutter (1a, 1b, 2d, 2e);
    c. calculating cutter position for cutting tool program (1a, 1b, 2d, 2e);
    d. explaining differences between incremental and absolute programming (1a, 1b, 2d, 2e);
    e. identifying codes used for part zero and TLO register pickup (1a, 1b, 2d, 2e);
    f. explaining canned cycles in CNC program (1a, 1b, 2d, 2e).
5. Demonstrate an understanding of CAD/CAM by
    a. explaining the major differences between computer-aided design and computer-aided manufacturing (1a, 1b, 2d, 2e);
    b. listing the major points in CAD (1a, 1b, 2d, 2e);
    c. listing the major points in CAM (1a, 1b, 2d, 2e).

MCHN 2431 - Operation of CNC Turning Centers

General

Course Key
13757

Course Rubric	Course Number	Course Title
MCHN	2431	Operation of CNC Turning Centers
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A study of CNC operations with an emphasis on turning centers. Required Prerequisites: DFTG-1305

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take DFTG-1305;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Set up and operate CNC turning centers; set the tool and workpiece offsets for machining operations; and edit the program as required.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the safety procedures for setup and operation of CNC machinery by
    a. demonstrating required safety procedures for setup and operation of CNC machines (1a, 1b, 2d, 2e);
    b. demonstrating proper safety procedures for handling cutting tools on a CNC machine (1a, 1b, 2d, 2e);
    c. demonstrating proper safety procedures for handling materials used in a CNC machine (1a, 1b, 2d, 2e).
2. Learn to program and operate CNC based machines by
    a. operating CNC machine controls (1a, 1b, 2d, 2e);
    b. comparing and contrasting the differences between CNC based machines and conventional machines (1a, 1b, 2d, 2e);
    c. using a CNC machine to complete a project (1a, 1b, 2d, 2e);
    d. defining and discussing the different materials used for cutting tools (1a, 1b, 2d, 2e).
3. Learn how CNC languages work by
    a. taking a knowledge test on G code (1a, 1b, 2d, 2e);
    b. taking a knowledge test on M codes (1a, 1b, 2d, 2e);
    c. writing a complete CNC program (1a, 1b, 2d, 2e);
    d. demonstrating ability to load and delete programs from CNC machine (1a, 1b, 2d, 2e);
    e. demonstrating ability to dry run a CNC program (1a, 1b, 2d, 2e);
    f. demonstrating ability to run a live CNC program (1a, 1b, 2d, 2e);
    g. demonstrating ability to check part against blueprint specification (1a, 1b, 2d, 2e).
4. Learn basics of G&M code languages by
    a. identifying and explaining G&M code (1a, 1b, 2d, 2e);
    b. demonstrating ability to calculate proper feeds and speeds for given cutter (1a, 1b, 2d, 2e);
    c. demonstrating ability to calculate cutter position for cutting tool program (1a, 1b, 2d, 2e);
    d. explaining differences between incremental and absolute programming (1a, 1b, 2d, 2e);
    e. identifying codes used for part zero and TLO register pickup (1a, 1b, 2d, 2e);
    f. explaining canned cycles in CNC program (1a, 1b, 2d, 2e).
5. Learn how to set up and operate a CNC turning center by
    a. performing multi-angular setups (1a, 1b, 2d, 2e);
    b. setting up and performing gear cuts (spur gears and splined shaft) (1a, 1b, 2d, 2e);
    c. performing advanced indexing operations (1a, 1b, 2d, 2e).

MCHN 2434 - Operation of CNC Machining Centers

General

Course Key
13612

Course Rubric	Course Number	Course Title
MCHN	2434	Operation of CNC Machining Centers
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A study of CNC operations with an emphasis on vertical machining centers. Required Prerequisites: DFTG-1305, DFTG-1409,and MCHN-2431

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take DFTG-1305 DFTG-1409(13586) MCHN-2431;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305, DFTG 1409,and MCHN 2431

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Set up and operate CNC machining centers; set machine and tool offsets for machining operations; and edit the program as required.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the safety procedures for setup and operation of CNC machinery by
    a. demonstrating required safety procedures for setup and operation of CNC machines (1a, 1b, 2d, 2e);
    b. demonstrating proper safety procedures for handling cutting tools on a CNC machine (1a, 1b, 2d, 2e);
    c. demonstrating proper safety procedures for handling materials used in a CNC machine (1a, 1b, 2d, 2e).
2. Learn to program and operate CNC based machines by
    a. operating CNC machine controls (1a, 1b, 2d, 2e);
    b. comparing and contrasting the differences between CNC based machines and conventional machines (1a, 1b, 2d, 2e);
    c. using a CNC machine to complete a project (1a, 1b, 2d, 2e);
    d. defining and discussing the different materials used for cutting tools (1a, 1b, 2d, 2e).
3. Learn how CNC languages work by
    a. taking a knowledge test on G code (1a, 1b, 2d, 2e);
    b. taking a knowledge test on M codes (1a, 1b, 2d, 2e);
    c. writing a complete CNC program (1a, 1b, 2d, 2e);
    d. demonstrating ability to load and delete programs from CNC machine (1a, 1b, 2d, 2e);
    e. demonstrating ability to dry run a CNC program (1a, 1b, 2d, 2e);
    f. demonstrating ability to run a live CNC program (1a, 1b, 2d, 2e);
    g. demonstrating ability to check part against blueprint specification (1a, 1b, 2d, 2e).
4. Learn basics of G&M code languages by
    a. identifying and explaining G&M code (1a, 1b, 2d, 2e);
    b. demonstrating ability to calculate proper feeds and speeds for given cutter (1a, 1b, 2d, 2e);
    c. demonstrating ability to calculate cutter position for cutting tool program (1a, 1b, 2d, 2e);
    d. explaining differences between incremental and absolute programming (1a, 1b, 2d, 2e);
    e. identifying codes used for part zero and TLO register pickup (1a, 1b, 2d, 2e);
    f. explaining canned cycles in CNC program (1a, 1b, 2d, 2e).
5. Learn how to set up and operate a CNC machining center by
    a. performing multi-angular setups (1a, 1b, 2d, 2e);
    b. performing steps needed to square material (1a, 1b, 2d, 2e);
    c. performing advanced setup operations (1a, 1b, 2d, 2e).

MCHN 2435 - Advanced CNC Machining

General

Course Key
13613

Course Rubric	Course Number	Course Title
MCHN	2435	Advanced CNC Machining
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3)Advanced CNC operation with an emphasis on programming and operations of machining and turning centers. Required Prerequisites: DFTG-1305 and DFTG-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # TAKE DFTG-1305 DFTG-1409;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): DFTG 1305 and DFTG 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Set up and operate CNC machining centers and CNC turning centers; select proper tooling with correct speeds and feeds; and produce a part to specific tolerances.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the safety procedures for setup and operation of CNC machinery by
    a. demonstrating required safety procedures for setup and operation of CNC machines (1a, 1b, 2d, 2e);
    b. demonstrating proper safety procedures for handling cutting tools on a CNC machine (1a, 1b, 2d, 2e);
    c. demonstrating proper safety procedures for handling materials used in a CNC machine (1a, 1b, 2d, 2e).
2. Demonstrate an understanding of the working environment of the CNC machine by
    a. labeling the axis on a CNC machine (1a, 1b, 2d, 2e);
    b. explaining how the CNC code translates into movement on the CNC machine (1a, 1b, 2d, 2e);
    c. setting up and operating a CNC machine center (1a, 1b, 2d, 2e);
    d. setting up and operating a CNC turning center (1a, 1b, 2d, 2e);
3. Demonstrate an understanding of the setup and operation of a CNC machine by
    a. explaining part zero location and why it is important for setup and programming part shapes (1a, 1b, 2d, 2e);
    b. demonstrating the procedure for setting part zero (1a, 1b, 2d, 2e);
    c. setting tool length offsets (1a, 1b, 2d, 2e);
    d. demonstrating the ability to load and delete programs from a CNC machine (1a, 1b, 2d, 2e);
    e. dry running a CNC program (1a, 1b, 2d, 2e);
    f. running a live CNC program (1a, 1b, 2d, 2e);
    g. checking part against blueprint specification (1a, 1b, 2d, 2e).
4. Demonstrate an understanding of the basics of G and M code languages by
    a. explaining G and M code (1a, 1b, 2d, 2e);
    b. calculating proper feeds and speeds for given cutter (1a, 1b, 2d, 2e);
    c. calculating cutter position for cutting tool program (1a, 1b, 2d, 2e);
    d. explaining differences between incremental and absolute programming (1a, 1b, 2d, 2e);
    e. identifying codes used for part zero and TLO register pickup (1a, 1b, 2d, 2e);
    f. explaining canned cycles in CNC program (1a, 1b, 2d, 2e).
5. Demonstrate an understanding of CAD/CAM by
    a. explaining the major differences between computer-aided design and computer-aided manufacturing (1a, 1b, 2d, 2e);
    b. listing the major points in CAD (1a, 1b, 2d, 2e);

MCHN 2444 - Computer Numerical Control Programming

General

Course Key
8894

Course Rubric	Course Number	Course Title
MCHN	2444	Computerized Numerical Control Programming
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Write, simulate, edit, execute CNC programs; calculate the feeds and speeds for various materials; and select the appropriate tooling.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the safety procedures for setup and operation of CNC machinery by
    a. demonstrating required safety procedures for setup and operation of CNC machines (1a, 1b, 2d, 2e);
    b. demonstrating proper safety procedures for handling cutting tools on a CNC machine (1a, 1b, 2d, 2e);
    c. demonstrating proper safety procedures for handling materials used in a CNC machine (1a, 1b, 2d, 2e).
2. Demonstrate an understanding of the working environment of the CNC machine by
    a. labeling the axis of travel on a CNC machine (1a, 1b, 2d, 2e);
    b. explaining how the CNC code translates into movement on the CNC machine (1a, 1b, 2d, 2e);
    c. describing the EDM process (1a, 1b, 2d, 2e);
    d. describing the different materials used for cutting tools (1a, 1b, 2d, 2e).
3. Demonstrate an understanding of the setup and operation of a CNC machine by
    a. explaining part zero location and why it is important for setup and programming part shapes (1a, 1b, 2d, 2e);
    b. demonstrating the procedure for setting part zero (1a, 1b, 2d, 2e);
    c. setting tool length offsets (1a, 1b, 2d, 2e);
    d. demonstrating the ability to load and delete programs from a CNC machine (1a, 1b, 2d, 2e);
    e. dry running a CNC program (1a, 1b, 2d, 2e);
    f. running a live CNC program (1a, 1b, 2d, 2e);
    g. checking part against blueprint specification (1a, 1b, 2d, 2e).
4. Demonstrate an understanding of the basics of G and M code languages by
    a. explaining G and M code (1a, 1b, 2d, 2e);
    b. calculating proper feeds and speeds for given cutter (1a, 1b, 2d, 2e);
    c. calculating cutter position for cutting tool program (1a, 1b, 2d, 2e);
    d. explaining differences between incremental and absolute programming (1a, 1b, 2d, 2e);
    e. identifying codes used for part zero and TLO register pickup (1a, 1b, 2d, 2e);
    f. explaining canned cycles in CNC program (1a, 1b, 2d, 2e).
5. The student will demonstrate an understanding of CAD/CAM by
    a. explaining the major differences between computer aided design and computer aided manufacturing (1a, 1b, 2d, 2e);
    b. listing the major points in CAD (1a, 1b, 2d, 2e);
    c. listing the major points in CAM (1a, 1b, 2d, 2e).

MDCA 1160 - Clinical-Medical/Clinical Assistant

General

Course Key
12934

Course Rubric	Course Number	Course Title
MDCA	1160	Clinical - Medical/Clinical Assistant

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-4) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate caring behaviors toward self and others (1a, 1b, 1c, 2b).
2. Implement beginning communication skills with patients, families, and members of the interdisciplinary health care team (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to collaborate with other members of the health care team (1a, 1b, 1c, 2a, 2b, 2d, 2e).
4. Apply clinical reasoning skills in problem solving and decision making (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate knowledge and self-directed behaviors for client safety (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate the attitudes and values of the healthcare profession (1a, 1b, 1c, 2a, 2b, 2c, 2d).

MDCA 1161 - Clinical-Medical/Clinical Assistant

General

Course Key
12935

Course Rubric	Course Number	Course Title
MDCA	1161	Clinical - Medical/Clinical Assistant

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-4) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate caring behaviors toward self and others (1a, 1b, 1c, 2b).
2. Apply principles of communication when interacting with patients, families, and members of the interdisciplinary health care team (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Collaborate with other members of the health care team (1a, 1b, 1c, 2a, 2b, 2d, 2e).
4. Apply clinical reasoning skills in problem solving and decision making (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate safe practice in the provision of care to patients and families (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate the attitudes and values of the healthcare profession (1a, 1b, 1c, 2a, 2b, 2c, 2d).

MDCA 1162 - Clinical-Medical/Clinical Assistant

General

Course Key
12936

Course Rubric	Course Number	Course Title
MDCA	1162	Clinical - Medical/Clinical Assistant

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-4) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate caring behaviors toward self and others (1a, 1b, 1c, 2b).
2. Apply principles of communication when interacting with patients, families, and members of the interdisciplinary health care team (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Collaborate with other members of the health care team (1a, 1b, 1c, 2a, 2b, 2d, 2e).
4. Apply clinical reasoning skills in problem solving and decision making (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate safe practice in the provision of care to patients and families (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate the attitudes and values of the healthcare profession (1a, 1b, 1c, 2a, 2b, 2c, 2d).

MDCA 1254 - Medical Asst Credentialing Exam Review

General

Course Key
12932

Course Rubric	Course Number	Course Title
MDCA	1254	Medical Assistant Credentialing Exam Review

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) A preparation for one of the National Commission for Certifying Agencies (NCCA) recognized credentialing exams.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop time-management skills; apply study techniques; perform test-taking strategies for exams covering content of medical assisting courses.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Review and understand the content of previous medical assisting courses (1a, 1b).
2. Apply test-taking strategies and study techniques (1a, 1b, 2a, 2c).
3. Develop time management skills (1a, 1b, 2a, 2c).
4. Demonstrate knowledge of content and competencies in the medical assisting program (1a, 1b, 2c).

MDCA 1302 - Human Disease and Pathophysiology

General

Course Key
12924

Course Rubric
MDCA

Course Number
1302

Course Title
Human Disease and Pathophysiology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)A study of anatomy and physiology with emphasis on human pathophysiology, including etiology, prognosis, medical treatment, signs and symptoms of common diseases of all body systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Distinguish between normal and abnormal physiologic functions of all body systems; identify etiology, signs, and symptoms of diseases of all body systems; and correlate the prognosis, medical treatment, and procedures with patient morbidity and mortality.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a basic understanding of the common diseases of the human body (1a, 1b).

2. Demonstrate an understanding of the etiology of diseases, the signs and symptoms of diseases, and the treatment of diseases (1a, 1b).

3. Understand the common laboratory and diagnostic tests used to diagnose common diseases (1a, 1b, 2a, 2c, 2e).

4. Understand the treatments of diseases or conditions (1a, 1b, 2a, 2c, 2e).

MDCA 1305 - Medical Law and Ethics

General

Course Key
15224

Course Rubric
MDCA

Course Number
1305

Course Title
Medical Law and Ethics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in health care settings.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define general legal terms as they apply to the practice of medicine in ambulatory care settings; differentiate between sources and types of law; identify the role of the medical assistant; explain governmental healthcare guidelines including patient rights and advanced directives.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Examine general legal concepts applied to healthcare professions (1a, 1b, 2c, 2d).

2. Explain the rights and obligations with nursing's legal role (1a, 1b, 2c, 2d).

3. Identify potential liability (1a, 1b, 2c, 2d).

4. Explain the legal responsibility of health care professionals (1a, 1b, 2c, 2d).

5. Explore ethical issues in health care (1a, 1b, 2c, 2d).

6. Illustrate the steps in the ethical decision-making process (1a, 1b, 2c, 2d).

7. Examine ethical issues related to genetic testing and recording of genetic information (1a, 1b, 2c, 2d).

MDCA 1310 - Medical Asst Interpersonal/Comm Skills

General

Course Key
12929

Course Rubric
MDCA

Course Number
1310

Course Title
Medical Assistant Interpersonal and Communication Skills

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)Emphasis on the application of basic psychological principles and the study of behavior as they apply to special populations. Topics include procedures for self-understanding and social adaptability in interpersonal communication with patients and co-workers in an ambulatory care setting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain basic psychological principles and developmental stages of life; differentiate between verbal and non-verbal communication; identify behaviors that interfere with effective communication; identify elements of active listening; discuss the stages of grief; identify relationships among various health care professions; and describe and demonstrate professionalism of an effective health care worker.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain communication process (1a, 1b, 2a, 2b, 2c).

2. Apply strategies of coordination, collaboration, and communication to plan, deliver, and evaluate interdisciplinary health care (1a, 1b, 1c, 2a, 2b, 2c, 2d).

3. Demonstrate verbal and nonverbal communication skills that are relevant, accurate, clear, complete, timely, understandable, and therapeutic (1a, 1b, 1c, 2b, 2c).

4. Demonstrate written communication skills that are legible, relevant, accurate, complete, and meaningful (1a, 1b, 2c, 2d, 2e).

5. Demonstrate active listening, genuineness, observational skills, physical attentiveness, and interviewing skills (1a, 1b, 1c, 2b).

6. Maintain eye contact (when culturally appropriate) (1a, 1b, 1c, 2b).

MDCA 1321 - Administrative Procedures

General

Course Key
12927

Course Rubric
MDCA

Course Number
1321

Course Title
Administrative Procedures

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Schedule appointments; create, document, and maintain patient medical records; correlate coding, billing, and collecting; perform bookkeeping tasks; utilize computer software for basic office functions; and demonstrate interpersonal communication skills.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of administrative procedures in medical offices (1a, 1b, 2a, 2c, 2d, 2e).

2. Demonstrate knowledge of an electronic medical records system (1a, 1b, 2a, 2c, 2d, 2e).

3. Demonstrate knowledge of the basic principles charting and HIPAA compliance (1a, 1b, 2a, 2c, 2d, 2e).

4. Use terminology related to the medical office procedures (1a, 1b).

5. Perform medical office procedures for ICD-10-CM and CPT coding (1a, 1b, 2a, 2c, 2d, 2e).

MDCA 1343 - Medical Insurance

General

Course Key
15225

Course Rubric
MDCA

Course Number
1343

Course Title
Medical Insurance

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Emphasizes medical office coding for payment and reimbursement by patient or third party payers for health care settings.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Code procedures and bill for services using both electronic and manual methods; compare and contrast insurance plans; describe the revenue cycle; and define common terms used to file third party reimbursement forms.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand the organization of a health care system (1a, 1b).

2. Create an awareness of the deficiencies in the minimal health insurance programs (1a, 1b, 2a, 2c).

3. Code health records using various classification systems (1a, 1b, 2a, 2c, 2d, 2e).

4. Execute reimbursement forms (1a, 1b, 2a, 2c, 2d, 2e).

5. Facilitate the development of an insurance claim (1a, 1b, 2a, 2c, 2d, 2e).

6. Interpret provider documentation to code for medical necessity (1a, 1b, 2a, 2c, 2d).

7. Examine the various methods of using private insurance to supplement the government health insurance programs (1a, 1b, 2a, 2c, 2d, 2e).

MDCA 1352 - Medical Assistant Lab Procedures

General

Course Key
12933

Course Rubric
MDCA

Course Number
1352

Course Title
Medical Assistant Lab Procedure

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Application of governmental health care guidelines. Includes specimen collection and handling, quality assurance and quality control in performance of Clinical Laboratory Improvement Amendments (CLIA)-waived laboratory testing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate venipuncture and skin puncture technique; demonstrate compliance with Universal Standards and Precautions based on OSHA guidelines; perform CLIA-waived laboratory tests; label and handle all biologic specimens; use equipment including calibration, maintenance and troubleshooting; demonstrate quality assurance and quality control procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Examine basic concepts of asepsis (1a, 1b, 2a, 2c, 2d).

2. Obtain baseline vital sign information and compare it to normal values (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

3. Demonstrate the ability to assist with minor surgery (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

4. Demonstrate how to use the electrocardiograph machine (1a, 1b, 1c, 2a, 2c, 2e).

5. Demonstrate skills necessary to work in a laboratory (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MDCA 1409 - Anatomy and Physiology for Medical Asst

General

Course Key
12925

Course Rubric
MDCA

Course Number
1409

Course Title
Anatomy & Physiology for Medical Assistant

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Emphasis on structure and function of human cells, tissues, organs, and systems with overview of common pathophysiology.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and correlate cells, tissues, organs, and systems of the human body; differentiate normal from abnormal structure and function; and differentiate all body systems, their organs, and relevant pathophysiology.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify and apply the fundamental concepts and methods of a life or physical science (1a, 1b).

2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system (1a, 1b).

3. Use anatomical terminology to identify and describe locations of major organs of each system (1a, 1b).

4. Explain contributions of organs and systems to the maintenance of homeostasis (1a, 1b).

5. Understand and describe the basic physiological principles of circulatory/cardiovascular, respiratory, urinary, endocrine, reproductive, digestive, lymphatic, and integumentary systems (1a, 1b, 2c).

6. Understand, identify, and describe the basic anatomical structures associated with the circulatory/cardiovascular, respiratory, urinary, endocrine, reproductive, digestive, lymphatic, and integumentary systems (1a, 1b, 1c).

7. Use the tools of scientific discipline to carry out collaborative laboratory investigations (1a, 1b, 2a, 2b, 2c, 2d, 2e).

8. Gather, analyze, and interpret data and present it in an effective written laboratory or fieldwork report (1a, 1b, 2a, 2b, 2c, 2d, 2e).

MDCA 1417 - Procedures in a Clinical Setting

General

Course Key
15226

Course Rubric	Course Number	Course Title
MDCA	1417	Procedures in a Clinical Setting

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Emphasis on patient assessment, examination, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for health care settings.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Assist with routine and specialty office examinations and procedures including inventory control; perform medical and surgical asepsis and sterile techniques appropriate in health care settings; apply governmental health care guidelines; and respond to medical emergencies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate competency in theory of basic procedures (1a, 1b, 1c, 2a, 2b, 2c).

2. Demonstrate competency in procedures by

   a. performing hand hygiene (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   b. preparing for isolation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   c. performing surgical hand hygiene with preparing a sterile field (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   d. performing the inventory control (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   e. collecting the specimen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   f. performing diagnostic tests (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   g. measuring intake and output (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   h. caring for patients with the following alterations in health: oxygen administration, tracheostomy care, catheterization and its care, and insertion of NG tube and its care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   i. administering nasogastric tube feeding (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   j. performing venipuncture and initiating IV therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

3. Discuss the delivery of basic procedures in a variety of health care settings (1a, 1b, 1c, 2a, 2b, 2c).

4. Demonstrate self-directed behaviors for client safety in a simulated environment (1a, 1b, 1c, 2a, 2b, 2c).

5. Demonstrate professional behavior by showing respect for others in a simulated environment (1a, 1b, 1c, 2a, 2b, 2c).

6. Apply clinical reasoning skills in problem solving and decision making, when providing care in a simulated environment (1a, 1b, 1c, 2a, 2b, 2c).

MDCA 1448 - Pharmacology/Administration Medications

General

Course Key
12928

Course Rubric	Course Number	Course Title
MDCA	1448	Pharmacology and Administration of Medications

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Instruction in concepts and application of pharmacological principles. Focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medico-legal responsibilities of the medical assistant.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Prepare, administer, and document oral and percutaneous medications; calculate drug dosages for administration by standard routes for adult and pediatric patients; demonstrate inventory handling and storage; and adhere to governmental health care guidelines and biohazard protocols.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Use terminology associated with pharmacology (1a, 1b, 1c, 2a, 2c).

2. Use appropriate sources of drug information to research prescribed medication (1a, 1b, 1c, 2a, 2c).

3. Apply the six rights of medication administration during the preparation, administration, and documentation of medication therapy (1a, 1b, 1c, 2a, 2c).

4. Demonstrate the ability to develop a drug profile for a prototype by

   a. developing a drug profile for drug action (1a, 1b, 1c, 2a, 2c);

   b. developing a drug profile for adverse reactions (1a, 1b, 1c, 2a, 2c);

   c. developing a drug profile for drug dosage forms (1a, 1b, 1c, 2a, 2c);

   d. developing a drug profile for recommended dosages and routes of administration (1a, 1b, 1c, 2a, 2c).

5. Use basic knowledge to deliver safe patient care while meeting the pharmacological needs of the patient (1a, 1b, 1c, 2a, 2c).

6. Use knowledge base to monitor the patient's response to drug therapy, collaborate with members of the health care team whenever needed to clarify orders, and report the individual's response to medication prescribed (1a, 1b, 1c, 2a, 2c).

7. Identify classifications of medications (1a, 1b, 1c, 2a, 2c).

8. Identify commonly prescribed medications and related information in each classification (1a, 1b, 1c, 2a, 2c).

9. Relate possible drug interactions for specific drugs (1a, 1b, 1c, 2a, 2c).

10. Evaluate the patient for possible adverse drug reactions (1a, 1b, 1c, 2a, 2c).

11. Demonstrate health teaching related to drug therapy (1a, 1b, 1c, 2a, 2b, 2c).

METL 1301 - Introduction to Metallurgy

General

Course Key
13709

Course Rubric
METL

Course Number
1301

Course Title
Introduction to Metallurgy

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A comprehensive study of refining, mechanical, and physical properties of ferrous and non-ferrous materials including the theory of alloys, heat treatment and testing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define the physical and mechanical properties of ferrous and non-ferrous metals; describe the steel making process; describe methods of destructive and nondestructive testing; explain the effects of hot working, cold working, welding, machining, and heat treating on metal properties; define metallurgical terms and processes; and recognize defects and their causes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the physical and mechanical properties of ferrous and non-ferrous metals by

    a. explaining how alloying affects a metal (1a, 1b, 2c, 2d);

    b. explaining how grain size affects the metal (1a, 1b, 2c, 2d).

2. Demonstrate an understanding of the steel making process by

    a. explaining the types of equipment used during the steel making process (1a, 1b, 2c, 2d);

    b. explaining the pros and cons of each process (1a, 1b, 2c, 2d).

3. Demonstrate an understanding of methods of destructive and nondestructive testing by

    a. explaining the destructive tests that are performed to verify a metal's properties (1a, 1b, 2c, 2d);

    b. identifying what nondestructive tests are performed at each step in the process (1a, 1b, 2c, 2d).

4. Demonstrating an understanding of the effects of hot working, cold working, welding, machining, and heat treating on metal properties by

    a. describing how secondary processes affect the grain structure and strength of metals (1a, 1b, 2c, 2d).

5. Demonstrating an understanding of metallurgical terms and processes by

    a. describing the various processes involved in metallurgical examinations (1a, 1b, 2c, 2d);

    b. identifying and explaining the purpose of equipment used during metallurgical examinations (1a, 1b, 2c, 2d);

    c. explaining the meaning of various metallurgical terms (1a, 1b, 2c, 2d).

6. Demonstrate an understanding of defects and their causes by

    a. identifying common inherent defects (1a, 1b, 2c, 2d);

    b. explaining the cause of each common inherent defect (1a, 1b, 2c, 2d).

METL 2371 - Materials and Failure Analysis

General

Course Key
15525

Course Rubric
METL

Course Number
2371

Course Title
Materials and Failure Analysis

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Analysis of metal structure failures. Topics include a study of aircraft corrosion, stress and fatigue under normal and abnormal operation and best practices in nondestructive testing and inspection techniques to identify defects.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of different types of corrosion by

    a. identifying pitting corrosion (1a, 1b, 2c);

    b. identifying erosion corrosion (1a, 1b, 2c);

    c. identifying fretting corrosion (1a, 1b, 2c).

2. Demonstrate an understanding of stress factors on structures by

    a. identifying locations with stress concentrations (1a, 1b, 2c);

    b. identifying areas with bending stresses (1a, 1b, 2c);

    c. identifying areas with torsional loading (1a, 1b, 2c);

    d. describing the effects of load frequency and temperature on a structure (1a, 1b, 2c).

3. Demonstrate an understanding of the appropriate NDT method for detecting fatigue or corrosion conditions by

    a. identifying which NDT methods are capable of detecting the corrosion or fatigue (1a, 1b, 2c).

MILI 0001 - Leadership Laboratory

General

Course Key
3674

Course Rubric
MILI

Course Number
0001

Course Title
Leadership Laboratory

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Description
(1-1-0) Course taught in coordination with ROTC program at Texas Christian University.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 0041 - Introduction to Leadership I

General

Course Key
3037

Course Rubric
MILI

Course Number
0041

Course Title
Introduction to Leadership I

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Description
(1-1-0) Course taught in coordination with ROTC program at Texas Christian University.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take MILI-0001
Type
Required concurrent course.

10
A Requirement block where all subrequirements are required

Take MILI-0001
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MILI 0042 - Basic Leadership I

General

Course Key
3676

Course Rubric
MILI

Course Number
0042

Course Title
Basic Leadership I

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
0

Description
(2-1-0) Course taught in coordination with ROTC program at Texas Christian University.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take MILI-0001
Type
Required concurrent course.

10
A Requirement block where all subrequirements are required

Take MILI-0001
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MILI 0080 - Leadership Lab

General

Course Key
9846

Course Rubric
MILI

Course Number
0080

Course Title
Leadership Lab

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Description
(1-0-3) Course offered in coordination with ROTC Program at the University of Texas at Arlington. Special permission to enroll required.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 0081 - Introduction to Leadership II

General

Course Key
3677

Course Rubric
MILI

Course Number
0081

Course Title
Introduction to Leadership II

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Description
(1-1-0) Course offered in coordination with ROTC Program at Texas Christian University.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 1001 - Leadership Laboratory

General

Course Key
5402

Course Rubric
MILI

Course Number
1001

Course Title
Leadership Laboratory

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Description
(1-1-0) Course taught in coordination with ROTC program at Texas Christian University.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 1041 - Foundations of Leadership

General

Course Key
9847

Course Rubric
MILI

Course Number
1041

Course Title
Foundations of Leadership

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Description
(1-1-0) Course offered in coordination with ROTC Program at the University of Texas at Arlington.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 1042 - Introduction to Leadership

General

Course Key
9848

Course Rubric
MILI

Course Number
1042

Course Title
Introduction to Leadership

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
3

Description
(1-1-3) Course offered in coordination with ROTC Program at the University of Texas at Arlington.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 2004 - Basic Leadership II

General

Course Key
3687

Course Rubric
MILI

Course Number
2004

Course Title
Basic Leadership II

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
0

Description
(2-1-0) Course offered in coordination with ROTC Program at Texas Christian University.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 2051 - Individual/Team Development

General

Course Key
9849

Course Rubric
MILI

Course Number
2051

Course Title
Individual/Team Development

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Description
(2-2-0) Course offered in coordination with ROTC Program at the University of Texas at Arlington.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 2052 - Individual/Team Military Tactics

General

Course Key
9850

Course Rubric
MILI

Course Number
2052

Course Title
Ind/Team Military Tactics

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
3

Description
(2-2-3) Course offered in coordination with ROTC Program at the University of Texas at Arlington.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MILI 2291 - Conference Course

General

Course Key
14630

Course Rubric
MILI

Course Number
2291

Course Title
Conference Course

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
0

Description
(0-0-0) Independent study. Designed to supplement the military science curriculum by a student's concentrated study in a narrower field.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MRIT 1271 - Magnetic Res Imaging - Registry Review

General

Course Key
14777

Course Rubric
MRIT

Course Number
1271

Course Title
Magnetic Resonance Imaging-Registry Review

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Technical Local Need

Description
(2-2-0) A continuation of magnetic resonance imaging principles, physics, techniques, equipment, methodology, and safety in preparation for licensure examination in MRI. Emphasis is placed on mastery of topics presented. Required Prerequisite(s): Graduate of a 2-year accredited medical radiography program in ionizing radiation. Current, unsanctioned ARRT licensure in Radiography, Radiation Therapy, Nuclear Medicine Technology, or Sonography. Texas Medical Board - Medical Radiologic Technologist License (MRT)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): Graduate of a 2 year accredited medical radiography program in ionizing radiation Current, unsanctioned ARRT licensure in Radiography, Radiation Therapy, Nuclear Medicine Technology, or Sonography. Texas Medical Board Medical Radiologic Technologist License (MRT).

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists' Content Specifications for the Examination in Magnetic Resonance Imaging, Joint Review Committee on Education in Magnetic Resonance Imaging (Professional Curriculum topics), and the American Society of Radiologic Technology's Magnetic Resonance Imaging Curriculum Guide.

End-of-Course Outcomes: Explain the operating principles of magnetic resonance imaging equipment, identify safety hazards, differentiate the methods of data acquisition, explain the reconstruction algorithms, and evaluate magnetic resonance image quality.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Prepare for the MRI Registry by

    a. reviewing principles and physics of MRI (1a, 1b, 2c, 2e);

    b. reviewing MRI equipment and methodology (1a, 1b, 2c, 2e);

    c. reviewing QA and safety procedures (1a, 1b, 2c, 2e);

    d. completing multiple mock registry exams of varying lengths to prepare for the ARRT MRI Registry Examination (1a, 1b, 2c, 2e).

MRIT 2330 - Principles of Magnetic Resonance Imaging

General

Course Key
12893

Course Rubric
MRIT

Course Number
2330

Course Title
Principles of Magnetic Resonance Imaging

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) In-depth coverage of magnetic resonance imaging techniques. Image quality assurance and safety protocols are emphasized.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists' Content Specifications for the Examination in Magnetic Resonance Imaging, Joint Review Committee on Education in Magnetic Resonance Imaging (Professional Curriculum topics), and the American Society of Radiologic Technology's Magnetic Resonance Imaging Curriculum Guide.

End-of-Course Outcomes: Explain the operating principles of magnetic resonance imaging equipment; identify safety hazards; differentiate the methods of data acquisition; explain the reconstruction algorithms; and evaluate magnetic resonance image quality.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Summarize principles of electrodynamics by

    a. identifying scientists associated with MR discovery and use (1a, 1b, 2c, 2e);

    b. describing magnetism and magnetic properties (1a, 1b, 2a, 2e);

    c. describing the production and detection of an MR signal (1a, 1b, 2c, 2e);

    d. using the Larmor equation to determine resonant frequency, field strength, and gyromagnetic ratio (1a, 1b, 1c, 2c, 2e);

    e. explaining the concepts of resonance, excitation, and relaxation (1a, 1b, 2c, 2e).

2. Describe MRI signal formation by

    a. describing signal induction, sampling, and conversion (1a, 1b, 2c, 2e);

    b. explaining magnetic gradient functions in MR imaging (1a, 1b, 2c, 2e);

    c. discussing and comparing the characteristics and techniques of spin echo and gradient echo sequences (1a, 1b, 2c, 2e);

    d. explaining the role of parameter selection in MR weighting (1a, 1b, 2c, 2e);

    e. defining and describing data acquisition processes (1a, 1b, 2c, 2e).

3. Describe equipment and environmental safety by

    a. listing MR safety organizations and their roles (1a, 1b, 2c, 2e);

    b. listing and defining the 3 MR magnetic fields and their safety (1a, 1b, 2c, 2e);

    c. identifying equipment, environmental, personnel, and patient safety (1a, 1b, 2c, 2e);

    d. describing emergency situations and the necessary actions taken (1a, 1b, 2c, 2e).

4. Identify and analyze imaging artifacts by

    a. listing artifacts, their causes, and their appearance (1a, 1b, 2c, 2e);

    b. discussing ways to reduce, compensate for, or eliminate artifacts (1a, 1b, 2c, 2e).

MRIT 2334 - MRI Equipment & Methodology

General

Course Key
12894

Course Rubric	Course Number	Course Title
MRIT	2334	Magnetic Resonance Equipment & Methodology

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Skill development in the operation of magnetic resonance imaging equipment, focusing on routine procedures and safety protocols, image quality, and quality assurance.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists' Content Specifications for the Examination in Magnetic Resonance Imaging, Joint Review Committee on Education in Magnetic Resonance Imaging (Professional Curriculum topics), and the American Society of Radiologic Technology's Magnetic Resonance Imaging Curriculum Guide.

End-of-Course Outcomes: Determine operating protocols for routine magnetic resonance imaging to include safety protocols and quality assurance; and analyze imaging artifacts.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand equipment and operation by

    a. describing the three basic types of clinical magnets, citing their advantages and disadvantages (1a, 1b, 2c, 2e);

    b. describing the functionality of RF, gradient, and shim systems in MRI (1a, 1b, 2c, 2e);

    c. demonstrating the use of ancillary equipment in MRI (1a, 1b, 2c, 2e).

2. Identify and discuss methodology in MRI by

    a. selecting appropriate parameters and imaging planes (1a, 1b, 2c, 2e);

    b. identifying positioning and procedural considerations (1a, 1b, 2c, 2e);

    c. discussing imaging options based on anatomic and/or pathological considerations (1a, 1b, 2c, 2e).

3. Identify pathology seen on MRI images by

    a. citing common pathologies seen in MRI (1a, 1b, 2c, 2e);

    b. recognizing signal characteristics and anatomical structure changes in size and shape indicating pathology (1a, 1b, 2c, 2e);

    c. describing the effect of contrast agents on visualizing pathology (1a, 1b, 2c, 2e).

4. Describe and understand quality assurance in MRI by

    a. describing field strength in relation to image quality (1a, 1b, 2c, 2e);

    b. listing and discussing quality assurance (QA) procedures that must be maintained in an MRI department (1a, 1b, 2c, 2e);

    c. defining imaging options used to optimize image quality (1a, 1b, 2c, 2e).

MRIT 2355 - Magnetic Resonance Image Physics

General

Course Key
12898

Course Rubric	Course Number	Course Title
MRIT	2355	Magnetic Resonance Imaging Physics

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of Magnetic Resonance Imaging (MRI) physics which includes principles of electrodynamics, pulse sequences, sequence parameters and options, and spin echo and gradient echo techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists' Content Specifications for the Examination in Magnetic Resonance Imaging, Joint Review Committee on Education in Magnetic Resonance Imaging (Professional Curriculum topics), and the American Society of Radiologic Technology's Magnetic Resonance Imaging Curriculum Guide.

End-of-Course Outcomes: Summarize principles of electrodynamics; interpret pulse sequences and sequence parameters and options; discuss spin echo and gradient echo techniques; and utilize algebraic concepts to solve MRI physics and electrodynamics problems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe pulse sequences and sequence parameters by

    a. constructing and analyzing pulse sequence diagrams (1a, 1b, 2c, 2e);

    b. determining the appropriate pulse sequences for desired image contrast (1a, 1b, 2c, 2e);

2. Describe MRI image formation by

    a. describing image formation and post processing (1a, 1b, 2c, 2e);

    b. evaluating MRI image quality, including extrinsic and extrinsic contrast characteristics (1a, 1b, 2c, 2e);

    c. calculating scan time and image contrast specifics utilizing varying formulas (1a, 1b, 1c, 2c, 2e).

3. Define contrast media and its use in MRI by

    a. discussing the different types of contrast media and their mechanisms of action (1a, 1b, 2c, 2e);

    b. identifying contrast media effects in images and their safety characteristics (1a, 1b, 2c, 2e).

MRIT 2462 - Clinical III-Radiologic Tech/Science

General

Course Key
15546

Course Rubric
MRIT

Course Number
2462

Course Title
Clinical III-Radiologic Technology/ Science-Radiographer (MRI)

Semester Credit Hours
4

Lecture Hours
0

Lab Hours
24

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-24) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists' Content Specifications for the Examination in Magnetic Resonance Imaging, Joint Review Committee on Education in Magnetic Resonance Imaging (Professional Curriculum topics), and the American Society of Radiologic Technology's Magnetic Resonance Imaging Curriculum Guide.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Function professionally under direct and indirect supervision by

   a. performing all general patient care activities, including venipuncture if needed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   b. demonstrating competence in performing routine MRI procedures of the head, neck, thorax, abdomen, lower, and upper extremities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   c. performing requisition evaluation, patient assessment, and room preparation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRIT 2560 - Clinical-Radiologic Tech/Science

General

Course Key
15547

Course Rubric
MRIT

Course Number
2560

Course Title
Clinical I-Radiologic Technology/ Science-Radiographer (MRI)

Semester Credit Hours
5

Lecture Hours
0

Lab Hours
24

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-0-24) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists' Content Specifications for the Examination in Magnetic Resonance Imaging, Joint Review Committee on Education in Magnetic Resonance Imaging (Professional Curriculum topics), and the American Society of Radiologic Technology's Magnetic Resonance Imaging Curriculum Guide.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Function professionally under direct and indirect supervision by

   a. performing all general patient care activities, including venipuncture if needed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   b. demonstrating competence in performing routine MRI procedures of the head, neck, thorax, abdomen, lower, and upper extremities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   c. performing requisition evaluation, patient assessment, and room preparation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRIT 2561 - Clinical II-Radiologic Tech/Science

General

Course Key
12899

Course Rubric
MRIT

Course Number
2561

Course Title
Clinical II-Radiologic Technology/ Science-Radiographer (MRI)

Semester Credit Hours
5

Lecture Hours
0

Lab Hours
24

Course Classification
Workforce Education Course Manual (WECM)

Description
(5-0-24) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Recommended Prerequisite: MRIT-2330

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisites/corequisite.
Type
Recommend Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE MRIT-2330;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): MRIT 2330

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists' Content Specifications for the Examination in Magnetic Resonance Imaging, Joint Review Committee on Education in Magnetic Resonance Imaging (Professional Curriculum topics), and the American Society of Radiologic Technology's Magnetic Resonance Imaging Curriculum Guide.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Function professionally under direct and indirect supervision by

   a. performing all general patient care activities, including venipuncture if needed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   b. demonstrating competence in performing routine MRI procedures of the head, neck, thorax, abdomen, lower, and upper extremities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

   c. performing requisition evaluation, patient assessment, and room preparation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRKG 1301 - Customer Relationship Management

General

Course Key
4552

Course Rubric
MRKG

Course Number
1301

Course Title
Customer Relationship Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) General principles of customer relationship management including skills, knowledge, attitudes, and behaviors.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Examine internal and external customer relationship management (CRM) strategies.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Define the important functions of Customer Relationship Management (1a, 2a).

2. Identify internal and external Customer Relationship Management behavior (1a, 1b, 1c, 2a, 2b).

3. Demonstrate techniques and strategies of successful Customer Relationship Management (1a, 1b, 1c, 2c, 2d).

4. Explain the value of effective verbal and nonverbal communication (1a, 1b, 1c, 2c, 2d).

5. Construct plans and campaigns to attract and retain customers (1b, 1c, 2a, 2b, 2c, 2d, 2e).

6. Explain the effects of electronic resources and changes in technology on customer relationships (1a, 1b, 1c, 2c, 2d, 2e).

7. Describe professional ethics and codes of behavior (1a, 1b, 1c, 2a, 2b, 2c).

8. Explain Customer Relationship Management and significance in a global economy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRKG 1302 - Principles of Retailing

General

Course Key
4679

Course Rubric
MRKG

Course Number
1302

Course Title
Principles of Retailing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Introduction to the retailing environment, types of retailers, current trends, the employment of retailing techniques, and factors that influence retailing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify consumer segments, environmental trends, and traditional and nontraditional retailing markets; explain the functions of retailing; and describe effective retailing techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the scope of the retail environment in an economic society (1a, 1b, 2a, 2b, 2c).

2. Outline careers and entrepreneurial opportunities retailing offers (1a, 1b, 1c, 2a, 2b).

3. Identify consumer segments and buying behavior characteristics (1a, 2a).

4. Describe site locations available to retailers and decisions regarding selections (1a, 2a, 2c, 2e).

5. List the elements of merchandise management in developing a merchandise plan (1b, 2a, 2b, 2c, 2d, 2e).

6. Compare and contrast factors associated with the operations policies, methods, and procedures used by successful retailers in a global economy (1a, 2a, 2e).

7. Explain retail image and promotional strategy by describing retail store layout, design, and visual merchandising (1b, 2a, 2b, 2c, 2d, 2e).

8. Demonstrate the use and influence of technology on creating effective retailing techniques (1b, 2a, 2b, 2c, 2d, 2e).

MRKG 1311 - Principles of Marketing

General

Course Key
218

Course Rubric
MRKG

Course Number
1311

Course Title
Principles of Marketing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Introduction to the marketing mix functions and process. Includes identification of consumer and organizational needs and explanation of environmental issues.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the marketing mix components in relation to market segmentation; explain the environmental factors which influence consumer and organizational decision-making processes; and outline a marketing plan.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Define the role of marketing in societies by outlining the philosophies and timeline of marketing history (1a, 2c).

2. Explain the controllable and uncontrollable variables affecting issues in the marketing environment (1a, 1b, 2a, 2c).

3. Analyze the components of the consumer and business buyer decision-making processes (1a, 1b, 1c, 2a, 2b, 2c).

4. Describe cultural and social factors, individual and group influences, and effects of technology on buying behaviors (1a, 1b, 1c, 2a, 2b, 2c).

5. Evaluate the role of promotional campaigns, including advertising and public relations (1a, 1b, 1c, 2a, 2b, 2c).

6. Compute breakeven points, and evaluate the role and techniques of pricing in marketing (1a, 1b, 2a, 2b, 2c).

7. Explain distribution processes by defining types of channel intermediaries, their functions, strategies, and technology (1a, 1b, 2a, 2b, 2c, 2d, 2e).

8. Develop a marketing plan with the inclusion of the basic elements of the marketing mix (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRKG 2312 - e-Commerce Marketing

General

Course Key
13661

Course Rubric
MRKG

Course Number
2312

Course Title
e-Commerce Marketing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Explore electronic tools utilized in marketing; focus on marketing communications in developing customer relationships.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform market analysis; develop e-Marketing goals; evaluate electronic communications; identify target audience; design and evaluate customer feedback techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Define different types of social media channels, along with key trends in this evolving medium (1a, 1b, 2a, 2c, 2d).

2. Demonstrate an understanding of how social media impacts the business and social environment (1a, 1b, 2a, 2c, 2d).

3. Understand the challenges and advantages of effective social media marketing (1a, 1b, 2a, 2c, 2d).

4. Identify and describe the various social media platforms available to small businesses (1a, 1b, 2a, 2c, 2d).

5. Develop social media marketing strategy in a small business setting (1a, 1b, 2a, 2b, 2c, 2d).

6. Evaluate the effectiveness of social media on enhancing branding and marketing strategies for the small business (1a, 1b, 2a, 2c, 2d).

7. Evaluate the purpose of various social media platforms (1a, 1b, 2a, 2c, 2d).

MRKG 2333 - Principles of Selling

General

Course Key
8938

Course Rubric
MRKG

Course Number
2333

Course Title
Principles of Selling

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Overview of the selling process. Identification of the elements of the communication process between buyers and sellers. Examination of the legal and ethical issues of organizations which affect salespeople.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define the selling process and its application to all forms of sales; identify the elements of the communication process between buyers and sellers in business; and examine ethical issues and legal restrictions of business.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Outline the steps in the selling process and application to the different forms of sales (1a, 1c, 2b, 2c).

2. Identify the elements of the communication process between buyers and sellers in business (1a, 2a, 2b, 2d).

3. Demonstrate verbal and nonverbal strategies in developing customer relationships (1b, 1c, 2a, 2b, 2c).

4. Explain ethical foundations for long term customer relationships (1b, 1c, 2b).

5. Develop customer-related product/service strategies with solution-based recommendations (1b, 2b, 2c).

6. Explain how to create a database of qualified prospects (2c, 2d, 2e).

7. Demonstrate the different types of effective presentation strategies using multidimensional technology (1b, 1c, 2a, 2b, 2d, 2e).

8. Demonstrate the management of a sales force by identifying leadership skills, and the selection, motivation, and retention of salespeople (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRKG 2348 - Marketing Research and Strategies

General

Course Key
4553

Course Rubric
MRKG

Course Number
2348

Course Title
Marketing Research and Strategies

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Practical experiences in analyzing marketing studies using data-driven decision-making processes. Includes interrelationships among the components of the marketing mix.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze marketing studies employing the problem solving process; utilize marketing research techniques to implement competitive marketing decisions; and interpret marketing research data to forecast industry trends and meet customer demands.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Outline the steps in the marketing research process (1a, 2c).

2. Explain quantitative and qualitative methodology in analyzing marketing research data (1a, 1b, 2b, 2c).

3. Outline basic sampling procedures involved in marketing research (1a, 1b, 2c, 2d, 2e).

4. Describe the components of a Marketing Information System (MIS) and how solutions are determined with MIS and other technological systems (1a, 1b, 2c, 2d, 2e).

5. Describe the elements of a well-designed questionnaire form and simple research instruments (1a, 1b, 2a, 2b, 2c).

6. Demonstrate an understanding of customer relationships in market-oriented strategic planning for research (1a, 1b, 1c, 2a, 2b).

7. Identify economic, social, legal, and ethical effects of marketing research (1a, 1b, 1c, 2a, 2b).

8. Differentiate global research needs from domestic needs in the challenges of marketing research (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRKG 2349 - Advertising and Sales Promotions

General

Course Key
4554

Course Rubric
MRKG

Course Number
2349

Course Title
Advertising and Sales Promotion

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Recognize the principles, practices, and use of multimedia in persuasive communication; establish promotional strategies, goals, and objectives within budget constraints and regulatory agencies; and create a multimedia campaign based on research for a specific product or service.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify components of advertising and how advertising fits into the marketing mix (1a, 1b, 2a, 2c).

2. Analyze the role of planning in advertising and creative advertising techniques (1a, 1b, 2a, 2c).

3. Trace the evolution of the ad agency and forms of agency compensation in the advertising industry (1a, 1b, 1c, 2a, 2b, 2c).

4. Compare and contrast advantages and disadvantages of media alternatives (1a, 1b, 2a, 2c).

5. Differentiate between the creative and technological aspects of an advertisement (1a, 1b, 2c, 2d, 2e).

6. Identify economic, social, and legal effects of advertising (1a, 1b, 1c, 2a, 2b, 2c, 2d).

7. Explain advertising strategies and effective promotional campaigns (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

8. Evaluate global advertising needs from domestic advertising needs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

MRKG 2370 - Digital Marketing

General

Course Key
16517

Course Rubric
MRKG

Course Number
2370

Course Title
Digital Marketing

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). This course provides a broad overview of the digital marketing techniques needed for designing marketing campaigns utilizing digital concepts. Students will explore the development, production, and implementation of digital-marketing delivery methods, including, but not limited to, web-based marketing, email and mobile marketing, search engine optimization (SEO), online advertising, and introductory social media concepts. Students will learn and utilize tools to measure and evaluate the effectiveness of digital marketing campaigns, which are designed to enhance customer experience. Recommended Prerequisite(s): MRKG-1301, MRKG-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): MRKG-1301 and MRKG-1311

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, the student will be able to:

- Utilize tools to measure and evaluate the effectiveness of digital-marketing campaigns
- Produce a digital media presentation
- Select digital media strategies for various delivery systems
- Examine digital media industry career opportunities

Upon successful completion of this course, students will:

1. Define different types of social media channels, along with key trends in this evolving medium (1a, 1b, 2a, 2c, 2d).
2. Demonstrate an understanding of how social media impacts the business and social environment (1a, 1b, 2a, 2c, 2d).
3. Understand the challenges and advantages of effective social media marketing (1a, 1b, 2a, 2c, 2d).
4. Identify and describe the various social media platforms available to small businesses (1a, 1b, 2a, 2c, 2d).
5. Develop social media marketing strategy in a small business setting (1a, 1b, 2a, 2b, 2c, 2d).
6. Evaluate the effectiveness of social media on enhancing branding and marketing strategies for the small business (1a, 1b, 2a, 2c, 2d).
7. Evaluate the purpose of various social media platforms (1a, 1b, 2a, 2c, 2d).

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class.

MRKG 2371 - Strategies in Social Media

General

Course Key
16518

Course Rubric
MRKG

Course Number
2371

Course Title
Strategies in Social Media

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Study of social media networks and their relationships to marketing programs. Explores social media marketing strategies and tactics, along with best practices. A study of current trends in social media, followed by the development of a plan and implementation of social media marketing activities, and evaluation of data using online analytics. Recommended Prerequisite(s): MRKG-1301, MRKG-1311, and MRKG-2370

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): MRKG-1301, MRKG-1311, and MRKG-2370

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, the student will be able to:

1. Students will apply case study methodology to Research current social media trends, common practices, and strategies for successful search marketing.
2. Students will work in teams to develop a marketing Plan that states their mission, describes the situation, performs a SWOT analysis, establishes marketing objectives, identifies multiple target markets, and creates a marketing mix.
3. Students will work in teams to Implement an effective social media campaign by following the parameters established in their marketing plan, creating and posting content to social media, and adjusting their strategies as needed.
4. Students will Evaluate the overall effectiveness of their social media marketing campaign by using analytics to collect, analyze, and report web metrics related to their key performance indicators.

MRKG 2372 - Adv Customer Service & Analytics

General

Course Key
16500

Course Rubric
MRKG

Course Number
2372

Course Title
Advanced Customer Service and Analytics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) The strategic, analytical, operational, and collaborative study of customer relationship management processes, systems, and technologies using primary and secondary data to improve customer satisfaction and retention, increase efficiency, and improve sales.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, the student will be able to:

1. Understand CRM Fundamentals
   Explain the purpose and benefits of Customer Relationship Management (CRM) in modern business environments. Identify key concepts, terms, and principles of CRM. Evaluate the role of CRM in improving customer satisfaction, retention, and business performance.
2. Analyze and Select CRM Tools
   Research and compare CRM software solutions based on features, pricing, and organizational needs. Develop a decision matrix to evaluate and select a business's most suitable CRM software. Apply best practices to avoid common CRM implementation mistakes.
3. Design and Implement CRM Strategies

   Create a comprehensive CRM system setup plan, including system architecture, staff training, and resource allocation. Develop strategies for capturing and managing leads through various channels, incorporating email marketing and automation tools.

   Design workflows and campaigns that leverage CRM software to improve marketing efficiency and customer engagement.
4. Organize Customer Data and Personas

   Build customer segmentation frameworks and personas based on data analysis.

   Develop story arcs and buyer journeys that align with customer personas and key touchpoints. Visualize CRM processes and data models using flowcharts or diagrams to ensure system integration and usability.
5. Evaluate CRM System Performance

   Establish performance metrics (KPIs) for CRM systems, including customer satisfaction, lead conversion, and operational efficiency. Collect and analyze feedback from customers and stakeholders to identify areas for improvement.

   Present a detailed evaluation report with actionable recommendations for optimizing CRM performance.
6. Navigate and utilize CRM tools, to build practical CRM skills.

   Demonstrate proficiency in CRM concepts and functionality.
7. Apply CRM to Real-World Scenarios

   Develop practical CRM implementation plans tailored to specific companies or organizations. Use CRM software to manage customer interactions, track leads, and automate marketing efforts. Integrate CRM strategies with project and event management tools to optimize business operations.
8. Embrace Continuous Learning and Certification

   Recognize the importance of continuous improvement and learning in CRM practices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class.

MRKG 2381 - COOP Ed-marketing Mmgt General

General

Course Key
16501

Course Rubric
MRKG

Course Number
2381

Course Title
Cooperative Education - Marketing/Marketing Management, General

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-14) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Required Prerequisites: MRKG-1311 MRKG-2370 MRKG-2371 MRKG 2372

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): MRKG-1311, MRKG-2370, MRKG-2371, MRKG 2372

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, the student will be able to:

As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

- Gain practical experience in marketing.
- Enhance marketing-related skills.
- Integrate marketing knowledge in the workplace.

Program Competencies
An external learning experience is a competency-based learning experience that enhances lecture and laboratory instruction and is provided at work sites appropriate to the discipline. Time used to present or apply knowledge in a workplace setting is classified as an external learning experience. The integration of knowledge gained through the external experience with previously learned concepts or practices.

Applying Marketing Concepts
Demonstrate how to apply learned marketing principles to actual work situations.

Workplace Skills
Develop and showcasing professional skills in a marketing-related environment.

Integration of Theory and Practice
Showing the ability to combine classroom knowledge with practical experience.

Capstone Experience
Culminating in a capstone project or experience that demonstrates overall competency in marketing.

MUAP 1190 - Individual Instruction

General

Course Key
16143

Course Rubric
MUAP

Course Number
1190

Course Title
Individual Instruction

Semester Credit Hours
1

Lecture Hours
0.5

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-.5-0)Individual instruction in voice, instrument, composition, or conducting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUAP 1191 - Individual Instruction

General

Course Key
16144

Course Rubric
MUAP

Course Number
1191

Course Title
Individual Instruction

Semester Credit Hours
1

Lecture Hours
0.5

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-.5-0). Individual instruction in voice, instrument, composition, or conducting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUAP 1290 - Individual Instruction

General

Course Key
16145

Course Rubric
MUAP

Course Number
1290

Course Title
Individual Instruction

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-0) Individual instruction in voice, instrument, composition, or conducting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUAP 1291 - Individual Instruction

General

Course Key
16146

Course Rubric
MUAP

Course Number
1291

Course Title
Individual Instruction

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-0) Individual instruction in voice, instrument, composition, or conducting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUAP 1292 - Individual Instruction

General

Course Key
16147

Course Rubric
MUAP

Course Number
1292

Course Title
Individual Instruction

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-0) Individual instruction in voice, instrument, composition, or conducting. Recommended Prerequisite: MUAP-1291

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take muap-1291;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUAP 2291 - Individual Instruction

General

Course Key
16148

Course Rubric
MUAP

Course Number
2291

Course Title
Individual Instruction

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-0) Individual instruction in voice, instrument, composition, or conducting. Recommended Prerequisite: MUAP-1291

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take muap-1291;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUAP 2292 - Individual Instruction

General

Course Key
16149

Course Rubric
MUAP

Course Number
2292

Course Title
Individual Instruction

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(2-1-0) Individual instruction in voice, instrument, composition, or conducting. Recommended Prerequisite: MUAP-2291

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for recommended prerequisite.
Type
Recommended Prerequisite

10
A Requirement block where all subrequirements are required

take muap-2291;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUEN 1122 - Jazz Ensembles

General

Course Key
16150

Course Rubric
MUEN

Course Number
1122

Course Title
Jazz Ensembles

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Large ensemble is comprised of instrumentation appropriate to designated ensemble styles. The ensemble will rehearse and perform music from the literature of the appropriate styles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1123 - Band

General

Course Key
16151

Course Rubric
MUEN

Course Number
1123

Course Title
Band

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Large ensemble is comprised of instrumentation appropriate to designated ensemble styles. The ensemble will rehearse and perform music from the literature of the appropriate styles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1124 - Orchestra

General

Course Key
16152

Course Rubric
MUEN

Course Number
1124

Course Title
Orchestra

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Large ensemble is comprised of instrumentation appropriate to designated ensemble styles. The ensemble will rehearse and perform music from the literature of the appropriate styles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1132 - Combo

General

Course Key
16153

Course Rubric
MUEN

Course Number
1132

Course Title
Combo

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1133 - Chamber Winds

General

Course Key
16154

Course Rubric
MUEN

Course Number
1133

Course Title
Chamber Winds

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1134 - Chamber Strings

General

Course Key
16155

Course Rubric
MUEN

Course Number
1134

Course Title
Chamber Strings

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1135 - Guitar Ensemble

General

Course Key
16156

Course Rubric
MUEN

Course Number
1135

Course Title
Guitar Ensemble

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1141 - Large Choral Ensembles

General

Course Key
16157

Course Rubric
MUEN

Course Number
1141

Course Title
Large Choral Ensembles

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). A wide variety of music representing the literature of the great eras of music history is studied and performed. Prerequisite: Demonstrated competence approved by the instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 1151 - Chamber Singers

General

Course Key
16158

Course Rubric
MUEN

Course Number
1151

Course Title
Chamber Singers

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3) Activities include study and performance of specialized choral literature suitable for more advanced students. This course may be repeated for credit. Prerequisite: Demonstrated competence approved by the instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2122 - Jazz Ensembles

General

Course Key
16159

Course Rubric
MUEN

Course Number
2122

Course Title
Jazz Ensembles

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Large ensemble is comprised of instrumentation appropriate to designated ensemble styles. The ensemble will rehearse and perform music from the literature of the appropriate styles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2123 - Band

General

Course Key
16160

Course Rubric
MUEN

Course Number
2123

Course Title
Band

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Large ensemble is comprised of instrumentation appropriate to designated ensemble styles. The ensemble will rehearse and perform music from the literature of the appropriate styles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2124 - Orchestra

General

Course Key
16161

Course Rubric
MUEN

Course Number
2124

Course Title
Orchestra

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). Large ensemble is comprised of instrumentation appropriate to designated ensemble styles. The ensemble will rehearse and perform music from the literature of the appropriate styles.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2132 - Combo

General

Course Key
16162

Course Rubric
MUEN

Course Number
2132

Course Title
Combo

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2133 - Chamber Winds

General

Course Key
16163

Course Rubric
MUEN

Course Number
2133

Course Title
Chamber Winds

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2134 - Chamber Strings

General

Course Key
16164

Course Rubric
MUEN

Course Number
2134

Course Title
Chamber Strings

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2135 - Guitar Ensemble

General

Course Key
16165

Course Rubric
MUEN

Course Number
2135

Course Title
Guitar Ensemble

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). The Freshman Chamber Instrumental Ensemble to meet special needs with the nature of ensemble determined by student interest and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2141 - Large Choral

General

Course Key
16166

Course Rubric
MUEN

Course Number
2141

Course Title
Large Choral

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). A wide variety of music representing the literature of the great eras of music history is studied and performed. Prerequisite: Demonstrated competence approved by the instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUEN 2151 - Chamber Singers

General

Course Key
16167

Course Rubric
MUEN

Course Number
2151

Course Title
Chamber Singers

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-0-3). A wide variety of music representing the literature of the great eras of music history is studied and performed. Prerequisite: Demonstrated competence approved by the instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUSI 1116 - Sight Singing and Ear Training I

General

Course Key
16168

Course Rubric
MUSI

Course Number
1116

Course Title
Sight Singing & Ear Training I

Semester Credit Hours
1

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-3-0)Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony. Recommended Co-Requisite: MUSI-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 1117 - Sight Singing and Ear Training II

General

Course Key
16169

Course Rubric
MUSI

Course Number
1117

Course Title
Sight Singing & Ear Training II

Semester Credit Hours
1

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-3-0) Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony. Recommended Pre-requisite: MUSI-1116 Recommended Co-Requisite: MUSI-1312

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-1116;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-1312;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 1181 - Piano Class I

General

Course Key
16170

Course Rubric
MUSI

Course Number
1181

Course Title
Piano Class I

Semester Credit Hours
1

Lecture Hours
2

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-2-1) Beginning class instruction in the fundamentals of keyboard technique.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUSI 1182 - Piano Class II

General

Course Key
16171

Course Rubric
MUSI

Course Number
1182

Course Title
Piano Class II

Semester Credit Hours
1

Lecture Hours
2

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-2-1) Advanced beginning class instruction in the fundamentals of keyboard technique. Required Prerequisite: MUSI-1181

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-1181;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 1183 - Voice Class

General

Course Key
16172

Course Rubric
MUSI

Course Number
1183

Course Title
Voice Class

Semester Credit Hours
1

Lecture Hours
2

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-2-1) Class instruction in the fundamentals of singing including breathing, tone production, and diction. Designed for students with little or no previous voice training. Does not apply to a music major degree.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUSI 1192 - Guitar Class

General

Course Key
16173

Course Rubric
MUSI

Course Number
1192

Course Title
Guitar Class

Semester Credit Hours
1

Lecture Hours
2

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-2-1) Class instruction in fundamental guitar playing, including technique, music-reading, fretboard theory, melodic and harmonic realizations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUSI 1306 - Music Appreciation

General

Course Key
16175

Course Rubric
MUSI

Course Number
1306

Course Title
Music Appreciation

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Understanding music through the study of cultural periods, major composers, and musical elements, illustrated with audio recordings and live performances. Course does not apply to a music major degree.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUSI 1307 - Music Literature

General

Course Key
16176

Course Rubric
MUSI

Course Number
1307

Course Title
Music Literature

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUSI 1310 - American Music

General

Course Key
16177

Course Rubric
MUSI

Course Number
1310

Course Title
American Music

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A general survey of various styles of music of the Americas, including but not limited to jazz, folk, rock, and contemporary music.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

MUSI 1311 - Music Theory I

General

Course Key
16178

Course Rubric
MUSI

Course Number
1311

Course Title
Music Theory I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scales, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Optional correlated study at the keyboard. Recommended Co-Requisite: MUSI-1116

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

#TAKE MUSI-1116;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 1312 - Music Theory II

General

Course Key
16179

Course Rubric
MUSI

Course Number
1312

Course Title
Music Theory II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)The study of analysis and writing of tonal melody and diatonic harmony, including all diatonic chords and seventh chords in root position and inversions, non-chord tones, and functional harmony. Introduction to more complex topics, such as modulation, may occur. Optional correlated study at the keyboard. Recommended Pre-requisite: MUSI-1311 Recommended Co-requisite: MUSI-1117

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Co-requisiste

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-1117;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 2116 - Sight Singing and Ear Training III

General

Course Key
16180

Course Rubric
MUSI

Course Number
2116

Course Title
Sight Singing & Ear Training III

Semester Credit Hours
1

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-3-0)Singing more difficult tonal music in various clefs, aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures. Recommended Pre-requisite: MUSI-1117 Recommended Co-requisite: MUSI-2311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-1117;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-2311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 2117 - Sight Singing and Ear Training IV

General

Course Key
16181

Course Rubric
MUSI

Course Number
2117

Course Title
Sight Singing & Ear Training IV

Semester Credit Hours
1

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-3-0)Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony. Recommended Pre-requisite: MUSI-2116 Recommended Co-requisite: MUSI-2312

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-2116;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-2312;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 2181 - Piano Class III

General

Course Key
16182

Course Rubric
MUSI

Course Number
2181

Course Title
Piano Class III

Semester Credit Hours
1

Lecture Hours
2

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-2-1) Intermediate class instruction of keyboard technique. Required Prerequisite: MUSI-1182

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MUSI-1182;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 2182 - Piano Class IV

General

Course Key
16183

Course Rubric
MUSI

Course Number
2182

Course Title
Piano Class IV

Semester Credit Hours
1

Lecture Hours
2

Lab Hours
1

Course Classification
Academic Course Guide Manual (ACGM)

Description
(1-2-1) Advanced class instruction of keyboard technique. Required Prerequisite: MUSI-2181

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MUSI-2181;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 2311 - Music Theory III

General

Course Key
16184

Course Rubric
MUSI

Course Number
2311

Course Title
Music Theory III

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Optional correlated study at the keyboard. Recommended Prerequisite: MUSI-1312 Recommended Corequisite: MUSI-2116

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

#TAKE MUSI-1312;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-2116;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

MUSI 2312 - Music Theory IV

General

Course Key
16185

Course Rubric
MUSI

Course Number
2312

Course Title
Music Theory IV

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0)Continuation of advanced chromaticism and survey of analytical and compositional procedures in post-tonal music. Optional correlated study at the keyboard. Recommended Prerequisite: MUSI-2311 Recommended Corequisite: MUSI-2117

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-2311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

 # TAKE MUSI-2117;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

NDTE 1340 - Electromagnetic Testing

General

Course Key
15251

Course Rubric
NDTE

Course Number
1340

Course Title
Electromagnetic Testing

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) General principles of electromagnetic testing including theory, knowledge, and skills for basic examination; effects of material properties, probe types, calibration standards, and equipment selection.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify electromagnetic equipment, procedures, and applications; demonstrate calibration procedures; evaluate the signals for a basic electromagnetic testing.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate discipline-specific knowledge of equipment, procedures, and applications by
    a. explaining filter effects on rotating reference standards (1a, 1b, 2c, 2d).
2. Demonstrate an understanding of calibration procedures by
    a. generating a Z-curve with Conductivity Standards (1a, 1b, 2c, 2d).
3. Demonstrate the ability to evaluate the signals for a basic Eddy Current examination by
    a. demonstrating liftoff effects (1a, 1b, 2c, 2d);
    b. demonstrating frequency effects (1a, 1b, 2c, 2d);
    c. demonstrating rotational and forward speed effect (1a, 1b, 2c, 2d).

NDTE 1371 - Introduction to Radiation Safety

General

Course Key
15538

Course Rubric
NDTE

Course Number
1371

Course Title
Introduction to Radiation Safety

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Technical Local Need

Description
(3-2-4) This introductory industrial radiography class is tailored for individuals entering the field of industrial radiography. It serves as a fundamental training program to meet the needs of the State 40 Hour Radiation Safety. The course delves into common misconceptions related to industrial radiography, introduces the core principles of industrial radiography, offers insights into the science behind non-destructive testing, and emphasizes the crucial aspects of safety for both workers and the public. The course meets the requirements of the state 40 hours approved safety course, and Level I in accordance with NAS 410, and ASNT-TC-1A.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to calculate the radiation boundaries by
    a. calculating Radiation Area distance (1a, 1b, 2c, 2d);
    b. calculating High Radiation distance (1a, 1b, 2c, 2d).
2. Demonstrate an understanding of radiation effects on the human body by
    a. describing the effects of different types of radiation on the human body (1a, 1b, 2c, 2d);
    b. describing methods of controlling radiation exposure (1a, 1b, 2c, 2d);
    c. calculating the permissible radiation doses for an individual (1a, 1b, 2c, 2d);
    d. explaining how to monitor radiation exposure levels (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of different types of radiation and how they occur by
    a. explaining how radioactive isotopes emit radiation (1a, 1b, 2c, 2d);
    b. explaining how X-Ray tubes generate radiation (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of safe handling of radioactive materials by
    a. explaining the various methods of detecting radiation (1a, 1b, 2c, 2d);
    b. demonstrating the use of a survey meter (1a, 1b, 2c, 2d, 2e);
    c. demonstrating a gamma radiation exposure (1a, 1b, 2c, 2d);
    d. demonstrating an X-Ray exposure (1a, 1b, 2c, 2d).
5. Demonstrate an understanding of handling and processing techniques for various film types by
    a. processing film using a film processor (1a, 1b, 2c, 2d);
    b. processing film manually (1a, 1b, 2c, 2d);
    c. processing digital film (1a, 1b, 2c, 2d).
6. Demonstrate an understanding of equipment startup procedures by
    a. performing X-Ray machine warm up techniques (1a, 1b, 2c, 2d).
7. Demonstrate the ability to perform exposure times calculations by
    a. performing an exposure time calculation for a Gamma source (1a, 1b, 2c, 2d);
    b. performing an exposure time calculation for an X-Ray source (1a, 1b, 2c, 2d).

NDTE 1372 - Intro to NDT/NAS Codes and Standards

General

Course Key
13833

Course Rubric
NDTE

Course Number
1372

Course Title
Introduction to NDT/NAS Codes and Standards

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Overview on the theory and principles of NDT testing methods to include Liquid Penetrant, Magnetic Particle, Radiographic, Eddy Current, and Ultrasonic. An extensive review of the Codes & Standards that apply to aviation and other industries.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of each NDT Method and how it is performed by
    a. explaining the theory of each NDT method (1a, 1b, 2c, 2d);
    b. explaining the basic operating procedures for each NDT method (1a, 1b, 2c, 2d).
2. Demonstrate an understanding of ASNT SNT-TC-1A and NAS410 by
    a. identifying the differences between SNT-TC-1A and NAS410 (1a, 1b, 2c, 2d);
    b. identifying which industries require each standard and why (1a, 1b, 2c, 2d);
    c. identifying the governing bodies for each standard (1a, 1b, 2c, 2d).
3. Demonstrate an understanding of Standards, Inspection Procedures, Service Manuals, Service Bulletins, Airworthy Directives and their development by
    a. identifying the issuing entity of a written instruction (1a, 1b, 2c, 2d);
    b. identifying the parts of a written instruction (1a, 1b, 2c, 2d);
    c. identifying the component and process to be performed (1a, 1b, 2c, 2d).
4. Demonstrate an understanding of the Vision Examination requirements required to perform NDT inspections by
    a. explaining the vision requirements for NDT technicians (1a, 1b, 2c, 2d);
    b. explaining how the Vision Examination is performed (1a, 1b, 2c, 2d).
5. Demonstrate the ability to implement auditing and documentation practices and verify traceability to the appropriate standard by
    a. identifying the necessary documentation for a report (1a, 1b, 2c, 2d);
    b. verifying that all documentation is correct by cross checking (1a, 1b, 2c, 2d).

NDTE 1405 - Introduction to Ultrasonics

General

Course Key
13714

Course Rubric
NDTE

Course Number
1405

Course Title
Introduction to Ultrasonics

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-6) Basic theory and applications of the ultrasonic techniques of materials testing covering the theoretical material from the certification test for Ultrasonic Level I American Society of Non-Destructive Testing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the characteristics of metal with ultrasonic tests; outline the procedure for conducting ultrasonic tests; conduct a straight and angle beam examination; and conduct an ultrasonic test on metal samples. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the characteristics of metal with ultrasonic tests by
    a. determining the sound velocity of a sample using longitudinal, refracted longitudinal, and shear waves (1a, 1b, 2a, 2c, 2d, 2e);
    b. calculating the skip distance and leg length using refracted angle beam (1a, 1b, 2a, 2c, 2d, 2e);
    c. comparing a sample metal to a known reference standard (1a, 1b, 2a, 2c, 2d, 2e).
2. Demonstrate the procedure for conducting ultrasonic tests by
    a. preparing a part for inspection (1a, 1b, 2a, 2c, 2d, 2e);
    b. calibrating the inspection system (1a, 1b, 2a, 2c, 2d, 2e);
    c. performing the inspection (1a, 1b, 2a, 2c, 2d, 2e);
    d. documenting the test results (1a, 1b, 2a, 2c, 2d, 2e).
3. Conduct a straight and angle beam examination by
    a. determining the appropriate examination type (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying the equipment and standards required (1a, 1b, 2a, 2c, 2d, 2e);
    c. performing the inspection (1a, 1b, 2a, 2c, 2d, 2e);
    d. documenting the inspection results (1a, 1b, 2a, 2c, 2d, 2e).
4. Conduct an ultrasonic test on metal samples by
    a. determining the appropriate examination type (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying the equipment and standards required (1a, 1b, 2a, 2c, 2d, 2e);
    c. performing the inspection (1a, 1b, 2a, 2c, 2d, 2e);
    d. documenting the inspection results (1a, 1b, 2a, 2c, 2d, 2e).

NDTE 1410 - Liquid Penetrant/Magnetic Particle Test

General

Course Key
13715

Course Rubric
NDTE

Course Number
1410

Course Title
Liquid Penetrant/Magnetic Particle Testing

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) A theoretical study and practical application of the non-destructive testing techniques of penetrant and magnetic particle testing required by quality assurance and test personnel including proper test technique, or combination of techniques and interpretation, evaluation of test results.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and select proper materials and equipment to perform a liquid penetrant test of a weldment; interpret the results of a liquid penetrant test to ascertain acceptability of the weldment; describe safety precautions relative to fire and toxic hazards; and identify and properly select equipment used in magnetic particle testing. Describe the principles of magnetic particle, magnetic fields, and the current requirements for testing and demagnetization; perform a magnetic particle examination on a weldment, following established procedures; and interpret the results of a magnetic particle test to ascertain acceptability of the weldment. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe safety precautions relative to fire and toxic hazards by
    a. demonstrating safe work habits in a lab situation (1b, 2c).
2. Demonstrate an understanding of the proper materials, equipment, and procedures used to perform a liquid penetrant test of a weldment or component by
    a. identifying the proper materials to be used in a liquid penetrant test (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying the proper equipment to be used in a liquid penetrant test (1a, 1b, 2a, 2c, 3d, 3e);
    c. explaining required process controls (1a, 2c, 2d, 2e);
    d. demonstrating proper surface preparation (2a, 2c, 2d, 2e);
    e. demonstrating proper application of inspection media (2a, 2c, 2d, 2e);
    f. demonstrating correct post inspection processing (1a, 1c, 2d, 2e).
3. Demonstrate proficiency in interpreting the results of a liquid penetrant test to ascertain acceptability of the weldment or component by
    a. describing the different types of indications possible (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying and describing common indications (1a, 1b, 2a, 2c, 2d, 2e);
    c. comparing the indication to the acceptance criteria of the standard in order to correctly determine acceptability or non-acceptability (1a, 1c, 2d, 2e).
4. Describe the principles of magnetic particle, magnetic fields, and the current requirements for testing and demagnetization by
    a. demonstrating establishment of a magnetic field of proper strength in a part (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing the orientation of a magnetic field within a part (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining the field produced by each magnetizing method (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate an understanding of the equipment used in magnetic particle testing by
    a. identifying the proper materials to be used in a magnetic particle test (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying the proper equipment to be used in a magnetic particle test (1a, 1b, 2a, 2c, 2d, 2e);
    c. explaining required process controls (2a, 2c, 2d, 2e);
    d. demonstrating proper surface preparation (2a, 2c, 2d, 2e);
    e. demonstrating proper application of inspection media (2a, 2c, 2d, 2e);
    f. demonstrating correct post inspection processing (1a, 1c, 2d, 2e).
6. Demonstrate proficiency in performing a magnetic particle examination on a weldment or component following established procedures by
    a. identifying and correctly recording indications on a weldment (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying and correctly recording indications on a component (1a, 1b, 2a, 2c, 2d, 2e).
7. Demonstrate proficiency in interpreting the results of a magnetic particle test to ascertain acceptability of the weldment or component by
    a. describing the different types of indications possible (1a, 1b, 2a, 2c, 2d, 2e);
    b. identifying and describing common indications (1a, 1b, 2a, 2c, 2d, 2e);
    c. comparing the indication to the acceptance criteria of the standard in order to correctly determine acceptability or non-acceptability (1a, 1c, 2d, 2e).

NDTE 2401 - Advanced Ultrasonics

General

Course Key
13713

Course Rubric
NDTE

Course Number
2401

Course Title
Advanced Ultrasonics

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-6) Designed to strengthen the students' knowledge and skills in ultrasonic testing. Emphasis on examination of components and, characterization of flaws using advanced techniques. Required Prerequisite: NDTE-1405

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take NDTE-1405;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): NDTE 1405

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Write an ultrasonic test procedure to a code or standard; demonstrate the effects of test-piece shapes, grain structure, types of discontinuities, and how their orientation affects ultrasonic testing; use transducers, couplings, reference blocks, and instrument controls in the testing procedure; perform maintenance checks on instruments to assure accuracy; map transducer fields and test gain control; check resolution and calibrate sensitivity. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of inspection procedures by
    a. generating an inspection procedure when given the part and a standard to inspect it to (1a, 1b, 2c, 2d, 2e).
2. Demonstrate an understanding of the effects of test-piece shapes, grain structure, types of discontinuities, and how their orientation affects ultrasonic testing by
    a. performing an inspection on parts with various shapes to learn the effect part shape has on the sound beam (1a, 1b, 2c, 2d, 2e);
    b. performing an inspection on parts with various grain size (1a, 1b, 2c, 2d, 2e);
    c. explaining how different flaws and their orientation to the sound beam affect the display (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to use transducers, couplings, reference blocks, and instrument controls in the testing procedure by
    a. conducting an inspection from initial set up (1a, 1b, 2c, 2d, 2e).
4. Demonstrate the ability to perform maintenance checks on instruments to assure accuracy, map transducer fields, and test gain control; check resolution and calibrate sensitivity by
    a. demonstrating a vertical linearity check (1a, 1b, 2c, 2d, 2e);
    b. demonstrating a horizontal linearity check (1a, 1b, 2c, 2d, 2e);
    c. demonstrating an amplifier check (1a, 1b, 2c, 2d, 2e);
    d. performing a beam width measurement (1a, 1b, 2c, 2d, 2e);
    e. demonstrating a resolution check (1a, 1b, 2c, 2d, 2e);
    f. performing a sensitivity calibration using various calibration standards (1a, 1b, 2c, 2d, 2e).

NDTE 2473 - Industrial Radiography

General

Course Key
14206

Course Rubric
NDTE

Course Number
2473

Course Title
Industrial Radiography

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
6

Course Classification
Technical Local Need

Description
(4-2-6) Advanced study of Radiography testing that provides the student classroom training and hands on applications. The student will progress through a series of lessons and gain demonstrated abilities comparable to a Level II technician. The classroom and lab training will meet the requirements of SNT-TC-1A and NAS-410. Required Prerequisite: NDTE-1371

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE NDTE-1371;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): NDTE 1371

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to calculate various geometric factors present on radiographs by
    a. calculating geometric lack of sharpness (1a,1b, 2c, 2d, 2e);
    b. demonstrating the effects of changing the source to film distance (1a,1b, 2c, 2d, 2e);
    c. demonstrating the effects of changing the focal spot size (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to determine proper radiograph set up by
    a. demonstrating locations for placing identification (1a,1b, 2c, 2d, 2e);
    b. demonstrating location marker placement (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to identify flaws in a radiograph by
    a. evaluating radiographs of a casting (1a,1b, 2c, 2d, 2e);
    b. evaluating radiographs of a weld (1a,1b, 2c, 2d, 2e);
    c. evaluating radiographs of an aircraft structure (1a, 1b, 2c, 2d, 2e).
4. Demonstrate the ability to determine correct identification of radiographs by
    a. demonstrating radiograph identification techniques (1a, 1b, 2c, 2d, 2e);
    b. demonstrating correct data in the radiograph identification (1a, 1b, 2c, 2d, 2e).
5. Demonstrate the ability to determine if the radiograph meets the quality requirements by
    a. demonstrating proper film density measurement (1a,1b, 2c, 2d, 2e);
    b. demonstrating proper IQI sensitivity and placement (1a,1b, 2c, 2d, 2e);
    c. demonstrating film density measurement (1a, 1b, 2c, 2d, 2e).

NDTE 2474 - Emerging Technologies in NDTE

General

Course Key
15540

Course Rubric
NDTE

Course Number
2474

Course Title
Emerging Technologies in Nondestructive Techniques

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Technical Local Need

Description
(4-2-4) A study in advanced techniques for nondestructive testing and inspection of aircraft and components to include metallic and composite structures. Includes shearography, phased array and other emerging methods.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify defects in composite structures utilizing images produced using Laser Shearography by
    a. describing how to produce a Shearography image (1a, 1b, 2c, 2d, 2e);
    b. identifying unacceptable conditions in a Shearography image (1a, 1b, 2c, 2d, 2e);
    c. demonstrating knowledge of defects in a composite structure (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the calibration of MIA equipment and identify defects by
    a. identifying the proper MIA mode to use for a structure (1a, 1b, 2c, 2d, 2e);
    b. demonstrating calibration techniques on a calibration standard (1a, 1b, 2c, 2d, 2e);
    c. identifying defects in a composite structure (1a, 1b, 2c, 2d, 2e).
3. Demonstrate the ability to set up Acoustic Emission equipment and interpret results from structures by
    a. identifying locations for probe placement (1a, 1b, 2c, 2d, 2e);
    b. describing stress application techniques (1a, 1b, 2c, 2d, 2e);
    c. evaluating a nonmetallic structure using Acoustic Emission (1a, 1b, 2c, 2d, 2e);
    d. evaluating a metallic structure using Acoustic Emission (1a, 1b, 2c, 2d, 2e).

NDTE 2572 - Advanced Eddy Current

General

Course Key
14208

Course Rubric
NDTE

Course Number
2572

Course Title
Advanced Eddy Current

Semester Credit Hours
5

Lecture Hours
3

Lab Hours
5

Course Classification
Technical Local Need

Description
(5-3-5) Advanced study of Eddy Current Testing that provides the student classroom training and hands on applications. The student will progress through a series of lessons and gain demonstrated abilities comparable to a Level II technician. The classroom and lab training will meet the requirements of SNT-TC-1A and NAS-410. Required Prerequisite: NDTE-1340

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # TAKE NDTE-1340;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): NDTE 1340

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify flaw characteristics on various Eddy Current presentations by
    a. demonstrating the setup and calibration of an inspection system (1a, 1b, 2c, 2d, 2e);
    b. demonstrating a flaw signal from a surface indication (1a, 1b, 2c, 2d, 2e);
    c. demonstrating a flaw signal from a sub-surface flaw (1a, 1b, 2c, 2d, 2e);
    d. identifying flaws on various displays (1a, 1b, 2c, 2d, 2e).
2. Demonstrate the ability to identify the required information for an Eddy Current inspection procedure by
    a. writing a procedure having all of the required information to perform the inspection (1a, 1b, 2c).
3. Determine component acceptability to a procedure by
    a. demonstrating the comparison of a flaw's components to an inspection procedure acceptance criteria (1a, 1b, 2c).
4. Demonstrate the ability to perform an Eddy Current system check and calibration by
    a. completing an initial equipment setup and calibration in preparation for performing an inspection (1a, 1b, 2c, 2d, 2e).

NMTT 1266 - Practicum I Nuclear Medicine Technology

General

Course Key
12726

Course Rubric
NMTT

Course Number
1266

Course Title
Practicum I-Nuclear Medicine Technology

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
16

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-16)Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisites: BIOL-2401, BIOL-2402 and MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take BIOL-2401(12378) BIOL-2402(11828) MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402 and MATH 1314

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Maintain and operate nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
2. Maintain and operate auxiliary nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
3. Provide proper and appropriate nursing care during nuclear medicine procedures (1a, 1b, 1c, 2a, 2b, 2c, 2e).
4. Communicate effectively with the patient, patient's family, and staff (1a, 1b, 1c, 2a, 2b, 2c).
5. Provide safe and sanitary conditions (1a, 1b, 2a, 2b, 2c, 2e).
6. Recognize and respond to emergency conditions (1a, 1b, 1c, 2a, 2b, 2c, 2e).
7. Obtain pertinent patient history (when appropriate) and check procedural contraindications (1a, 1b, 2a, 2b, 2c).
8. Prepare the patient for their procedure (1a, 1b, 2a, 2b, 2c).
9. Select and administer the appropriate radiopharmaceutical via the proper route (1a, 1b, 2a, 2b, 2c).
10. Prepare proper equipment, computer, and auxiliary equipment and acquire images as indicated by protocol (1a, 1b, 2a, 2b, 2c, 2e).
11. Process and evaluate computer-generated data (1a, 1b, 2a, 2b, 2c, 2e).
12. Prepare and perform cardiac monitoring and/or stress testing (1a, 1b, 2a, 2b, 2c, 2e).
13. Prepare/administer interventional pharmacologic agents (1a, 1b, 2a, 2c, 2e).
14. Obtain samples for non-imaging studies (1a, 1b, 2a, 2c, 2e).
15. Calculate and evaluate results on non-imaging studies (1a, 1b, 2a, 2c, 2e).

NMTT 1267 - Practicum II Nuclear Medicine Technolog

General

Course Key
12712

Course Rubric
NMTT

Course Number
1267

Course Title
Practicum II-Nuclear Medicine Technology

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
20

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-20) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisites: BIOL-2401, BIOL-2402, and MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE BIOL-2401 BIOL-2402 MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402, and MATH 1314

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Maintain and operate nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
2. Maintain and operate auxiliary nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
3. Provide proper and appropriate nursing care during nuclear medicine procedures (1a, 1b, 1c, 2a, 2b, 2c, 2e).
4. Communicate effectively with the patient, patient's family, and staff (1a, 1b, 1c, 2a, 2b, 2c).
5. Provide safe and sanitary conditions (1a, 1b, 2a, 2b, 2c, 2e).
6. Recognize and respond to emergency conditions (1a, 1b, 1c, 2a, 2b, 2c, 2e).
7. Obtain pertinent patient history (when appropriate) and check procedural contraindications (1a, 1b, 2a, 2b, 2c).
8. Prepare the patient for their procedure (1a, 1b, 2a, 2b, 2c).
9. Select and administer the appropriate radiopharmaceutical via the proper route (1a, 1b, 2a, 2b, 2c).
10. Prepare proper equipment, computer, and auxiliary equipment and acquire images as indicated by protocol (1a, 1b, 2a, 2b, 2c, 2e).
11. Process and evaluate computer-generated data (1a, 1b, 2a, 2b, 2c, 2e).
12. Prepare and perform cardiac monitoring and/or stress testing (1a, 1b, 2a, 2b, 2c, 2e).
13. Prepare/administer interventional pharmacologic agents (1a, 1b, 2a, 2c, 2e).
14. Obtain samples for non-imaging studies (1a, 1b, 2a, 2c, 2e).
15. Calculate and evaluate results on non-imaging studies (1a, 1b, 2a, 2c, 2e).

NMTT 1301 - Introduction to Nuclear Medicine

General

Course Key
12722

Course Rubric
NMTT

Course Number
1301

Course Title
Introduction to Nuclear Medicine

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to the field of nuclear medicine with emphasis on the principles of radiation safety, health physics, and the various studies performed in a nuclear medicine area. Required Prerequisite: BIOL-2401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE BIOL-2401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Summarize the history and development of nuclear medicine; apply basic math and science concepts needed for the application of nuclear medicine in radiation safety and instrumentation; explain the principles and employ the methodologies of radiation safety and health physics; discuss studies and procedures performed in a nuclear medicine clinic. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Discuss the biological effects of radiation (1a, 1b, 2c).
2. Perform laboratory surveys with a G.M. meter (1a, 1b, 2c, 2e).
3. Perform wipe test on area in the laboratory (1a, 1b, 2c, 2e).
4. Discuss NRC and Texas regulations governing the use of byproduct materials (1a, 1b, 2c).
5. Define and calculate TEDE, CDE, & TODE (1a, 1b, 2c).
6. Define and calculate the effect of time, distance, and shielding on radiation exposure (1a, 1b, 2c).
7. Position patients for various nuclear medicine studies (1a, 1b, 2c).
8. Discuss various nuclear medicine studies (1a, 1b, 2c).
9. Perform various patient care skills including IV, blood pressure, and patient transfer exercises (1a, 1b, 2c).
10. Apply and practice Joint Commission Standards in the healthcare environment (1a, 1b, 2c).
11. Apply and practice HIPPA regulations in the healthcare environment (1a, 1b, 2c).
12. Recognize the different information systems used in the healthcare environment and manage patient information appropriately (1a, 1b, 2c).

NMTT 1309 - Nuclear Medicine Instrumentation

General

Course Key
12992

Course Rubric
NMTT

Course Number
1309

Course Title
Nuclear Medicine Instrumentation

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2)Theory and application of electronic instrumentation used in the direction and analysis of ionizing radiation with special emphasis on gamma spectrometry and quality assurance relevant to nuclear medicine instruments. Required Prerequisites: BIOL-2401, BIOL-2402, MATH-1314, and CHEM-1405

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE BIOL-2401 BIOL-2402 MATH-1314 CHEM-1405;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402, MATH 1314, and CHEM 1405

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the radioactive decay process and the interaction of ionizing radiation with matter and the operation of the electrical components of various radiation detection systems; relate the principles of operation of gas-filled detectors, scintillation detection systems, and liquid scintillation systems; determine a statistically accurate counting rate for a radiation detector; describe and differentiate the various imaging systems including scintillation cameras, multi-crystal cameras, and tomographic imaging systems; and discuss and apply the best quality control measures for continuous quality improvement. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Discuss the interactions of radiation with matter (1a, 1b, 2c).
2. Discuss the operation of gas-filled detectors (1a, 1b, 2c).
3. Discuss the operation of scintillation detection systems (1a, 1b, 2c).
4. Describe the makeup of detection instruments (1a, 1b, 2c).
5. Maintain appropriate instrumentation quality control records to comply with regulatory requirements (1a, 1b, 2c, 2d).
6. Describe and/or perform various instrument calibrations and quality control checks (1a, 1b, 2c, 2d, 2e).
7. Determine the energy resolution on a scintillation detector (1a, 1b, 2c, 2d).
8. Analyze quality control images to determine if scintillation camera is operating satisfactorily (1a, 1b, 2c, 2d, 2e).
9. Assess performance of image recording equipment (1a, 1b, 2c, 2d, 2e).
10. Discuss the interactions of radiation with matter (1a, 1b, 2c, 2d, 2e).
11. Discuss the operation of gas-filled detectors (1a, 1b, 2c, 2d, 2e).
12. Discuss the operation of scintillation detection systems (1a, 1b, 2c, 2d, 2e).
13. Describe the makeup of detection instruments (1a, 1b, 2c, 2d, 2e).
14. Maintain appropriate instrumentation quality control records to comply with regulatory requirements (1a, 1b, 2c, 2d, 2e).
15. Describe and/or perform various instrument calibrations and quality control checks (1a, 1b, 2c, 2d, 2e).
16. Determine the energy resolution on a scintillation detector (1a, 1b, 2c, 2d, 2e).
17. Analyze quality control images to determine if scintillation camera is operating satisfactorily (1a, 1b, 2c, 2d, 2e).
18. Assess performance of image recording equipment (1a, 1b, 2c, 2d, 2e).

NMTT 1313 - Nuclear Medicine Physics

General

Course Key
12701

Course Rubric
NMTT

Course Number
1313

Course Title
Nuclear Medicine Physics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)A comprehensive study of the physical principles associated with nuclear medicine and allied health physics. Identify atomic and nuclear structure; describe energy relationships; distinguish radioactivity as a consequence of nuclear instabilities, decay modes, radiations emitted, and interactions with matter; utilize mathematics for calculation of radioactivity and photon attenuation in matter; analyze statistical analyses related to nuclear medicine physics; and solve problems dealing with topics such as force, work, energy, frequency, and wave length. Required Prerequisite:SCIT-1320

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE SCIT-1320;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s):SCIT 1320

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify atomic and nuclear structure; describe energy relationships; distinguish radioactivity as a consequence of nuclear instabilities, decay modes, radiations emitted, and interactions with matter; utilize mathematics for calculation of radioactivity and photon attenuation in matter; analyze statistical analyses related to nuclear medicine physics; and solve problems dealing with topics such as force, work, energy, frequency, and wave length. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Solve problems using the different areas of mathematics applicable to nuclear medicine technology (1a, 1b, 2c).
2. Be familiar with units of measurement used within nuclear medicine physics (1a, 1b, 2c).
3. Diagram the atom and its constituent parts (1a, 1b, 2c).
4. Describe the historical aspects of radioactivity (1a, 1b, 2c).
5. Define radiation (1a, 1b, 2c).
6. Define and explain alpha, beta, and gamma radiations (1a, 1b, 2c).
7. Describe the properties of atoms, molecules, and matter (1a, 1b, 2c).
8. Be able to use a periodic table of the elements and a decay chart (1a, 1b, 2c).
9. Understand the various methods of radiation production and decay (1a, 1b, 2c).
10. Define natural and artificial radioactivity (1a, 1b, 2c).
11. Define average, effective, and physical half lives (1a, 1b, 2c).

NMTT 2209 - Nuclear Medicine Methodology I

General

Course Key
12724

Course Rubric
NMTT

Course Number
2209

Course Title
Nuclear Medicine Methodology I

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-3)Focus on the basic principles involved in all diagnostic and therapeutic tests and procedures normally found in a nuclear medicine facility with emphasis on anatomy, physiology, pathology, radiopharmaceuticals, instrumentation, data analysis, and diagnostic value. Includes the cardiovascular, respiratory, and genitourinary systems; inflammatory processes; tumors; and radionuclide therapy; and miscellaneous procedures. Required Prerequisites: BIOL-2401 and BIOL-2402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take BIOL-2401(12378) BIOL-2402(11828);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401 and BIOL 2402

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the most common reasons for ordering each study (pathology for which nuclear medicine procedures are of diagnostic value); list clinical findings that are consistent with the suspected pathology; describe the historical and current radiopharmaceuticals used for each study; cite any procedures and/or substances that may interfere with the performance of a valid test; explain any contraindications or adverse reactions associated with the study; and outline any associated patient preparation; specify equipment required for valid performance of the study; summarize the entire test procedure; discuss technical pitfalls associated with the study and methods of preventing and/or correcting technical problems associated with the study; relate possible alterations in the routine procedure; and identify normal and abnormal patterns of radiopharmaceutical distribution on typical studies. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Discuss the anatomy, physiology, and pathology of various organs and/or systems (1a, 1b, 2c).
2. List the main indications for performing in-vivo procedures (1a, 1b, 2c).
3. List and explain the characteristics of radiopharmaceuticals used for various organ and/or system imaging (1a, 1b, 2c).
4. State the preparations for all in-vivo procedures (1a, 1b, 2c).
5. Discuss any procedures and/or substances that may interfere with the performance of a study (1a, 1b, 2c).
6. Discuss any contraindications or adverse reactions associated with a procedure (1a, 1b, 2c).
7. List and describe the equipment and ancillary equipment required to perform procedures (1a, 1b, 2c).
8. Describe the different techniques used to attain data for clinical procedures (including alternate procedures) (1a, 1b, 2c).
9. Set up the instrument correctly to attain in-vivo procedures (1a, 1b, 2c).
10. State the views to be acquired on imaging procedures (1a, 1b, 2c).
11. Recognize abnormal from normal pathology as seen on a nuclear medicine image (1a, 1b, 2c).
12. Explain the various radionuclide treatments available for abnormal pathology (1a, 1b, 2c).
13. Process nuclear medicine procedures (1a, 1b, 2c).

NMTT 2235 - Nuclear Medicine Seminar

General

Course Key
12720

Course Rubric
NMTT

Course Number
2235

Course Title
Nuclear Medicine Seminar

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-4)A capstone course focusing on the synthesis of professional knowledge, skills and attitudes in preparation for professional employment and lifelong learning. Required Prerequisites: BIOL-2401, BIOL-2402, MATH-1314, and CHEM-1405

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE BIOL-2401 BIOL-2402 MATH-1314 CHEM-1405;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402, MATH 1314, and CHEM 1405

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Synthesize professional skills, knowledge and attitudes; demonstrate entry level competencies for professional employment; and demonstrate skills for lifelong learning. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain and outline the concepts of radiation safety and protection (1a, 1b, 2c).
2. Explain and outline all aspects of the use of radiopharmaceuticals (1a, 1b, 2c).
3. Describe the use and operation of instrumentation used in nuclear medicine (1a, 1b, 2c).
4. Describe all of the imaging procedures listed in the task analysis (1a, 1b, 2c).
5. Identify and describe all in-vivo non-imaging studies listed in the task analysis (1a, 1b, 2c).
6. Register for and provide proof of registration for the NMTCB and/or the ARRT examinations (1a, 1b, 1c, 2c).

NMTT 2301 - Radiochemistry and Radiopharmacy

General

Course Key
12723

Course Rubric
NMTT

Course Number
2301

Course Title
Radiochemistry and Radiopharmacy

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2)Basic concepts of radiochemistry and radiopharmacy including the atomic structure, radioactive decay, and production of various radionuclides. Emphasis on radiopharmaceuticals and their ideal characteristics, biodistribution, and clinical applications; the various dosage forms in which they may be dispensed; quality control tests; and their formation and dispensing. Required Prerequisite: BIOL-2401, BIOL-2402, CHEM-1405, and MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take BIOL-2401(12378) BIOL-2402 CHEM-1405 MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402, CHEM 1405, and MATH 1314

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the concepts of radiopharmacy; explain atomic structures and electronic configuration of atoms; describe various methods of radionuclide production and radiolabeling; interpret the mechanism of localization of various radiopharmaceuticals; cite quality control tests of various radiopharmaceuticals; identify radiation safety practices; and relate federal and state regulations governing the use of radiopharmaceuticals. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe methods of radionuclide production and identify the method of production for each of the radionuclides used in the clinical setting (1a, 1b, 2c).
2. Differentiate between diagnostic and therapeutic radiopharmaceuticals, and explain the characteristics of each (1a, 1b, 2c).
3. Explain the concept and process of radiolabeling (1a, 1b, 2c).
4. Describe the purpose and performance of various quality control tests used in the preparation of radiopharmaceuticals, and be able to perform and analyze the required mathematical calculations used in radiopharmacy (1a, 1b, 2c).
5. Explain the various mechanisms of uptake/localization of radiopharmaceuticals (1a, 1b, 2c).
6. Name and explain the use of non-radioactive pharmaceuticals used in specific studies (1a, 1b, 2c).
7. Identify the correct radiopharmaceutical to be used for a given procedure, the proper dose and route of administration, biodistribution, and physical characteristics that contribute to its usage (1a, 1b, 2c).
8. Identify and apply federal and state regulations governing the preparation, transportation, and use of radiopharmaceuticals (1a, 1b, 2c).
9. Identify pertinent information on a package insert from each radiopharmaceutical and non-radioactive pharmaceutical used in clinical practice (1a, 1b, 2c).

NMTT 2313 - Nuclear Medicine Methodology II

General

Course Key
12727

Course Rubric
NMTT

Course Number
2313

Course Title
Nuclear Medicine Methodology II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)Focus on the basic principles involved in all diagnostic and therapeutic tests and procedures normally found in a nuclear medicine facility with emphasis on anatomy, physiology, pathology, radiopharmaceuticals, instrumentation, data analysis, and diagnostic value. Includes the cardiovascular, respiratory, and lymphatic systems; the adrenal and parathyroid glands; tumors; and inflammatory processes; and miscellaneous procedures. Required Prerequisites: BIOL-2401, BIOL-2402, MATH-1314, and CHEM-1405

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE BIOL-2401 BIOL-2402 MATH-1314 CHEM-1405;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402, MATH 1314, and CHEM 1405

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the most common reasons for ordering each study (pathology for which nuclear medicine procedures are of diagnostic value); list clinical findings that are consistent with the suspected pathology; describe the historical and current radiopharmaceuticals used for each study; cite any procedures and/or substances that may interfere with the performance of a valid test; explain any contraindications or adverse reactions associated with the study; and outline any associated patient preparation; specify equipment required for valid performance of the study; summarize the entire test procedure; discuss technical pitfalls associated with the study and methods of preventing and/or correcting technical problems associated with the study; relate possible alterations in the routine procedure; and identify normal and abnormal patterns of radiopharmaceutical distribution on typical studies. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Discuss the anatomy, physiology, and pathology of various organs and/or systems (1a, 1b, 2c).
2. List the main indications for performing in-vivo procedures (1a, 1b, 2c).
3. List and explain the characteristics of radiopharmaceuticals used for various organ and/or system imaging (1a, 1b, 2c).
4. State the preparations for all in-vivo procedures (1a, 1b, 2c).
5. Discuss any procedures and/or substances that may interfere with the performance of a study (1a, 1b, 2c).
6. Discuss any contraindications or adverse reactions associated with a procedure (1a, 1b, 2c).
7. List and describe the equipment and ancillary equipment required to perform procedures (1a, 1b, 2c).
8. Describe the different techniques used to attain data for clinical procedures (including alternate procedures) (1a, 1b, 2c).
9. Set up the instrument correctly to attain in-vivo procedures (1a, 1b, 1c, 2a, 2b).
10. State the views to be acquired on imaging procedures (1a, 1b, 2c).
11. Recognize abnormal from normal pathology as seen on a nuclear medicine image (1a, 1b, 2c).
12. Explain the various radionuclide treatments available for abnormal pathology (1a, 1b, 2c).
13. Process nuclear medicine procedures. (1a, 2c).

NMTT 2333 - Positron Emission Tomo & Fushion Tech

General

Course Key
12714

Course Rubric
NMTT

Course Number
2333

Course Title
Positron Emission Tomography (PET) and Fusion Technology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)Advanced study in the field of positron emission tomography and fusion technology. Recommended Prerequisite: NMTT-1309 Required Prerequisite: BIOL-2401, BIOL-2402, MATH-1314, CHEM-1405

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE BIOL-2401 BIOL-2402 MATH-1314 CHEM-1405;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE NMTT-1309;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): NMTT 1309
Required Prerequisite(s): BIOL 2401, BIOL 2402, MATH 1314, CHEM 1405

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the methodology of positron emission tomography and fusion technology; describe radiopharmaceuticals used; specify their patterns of biodistribution; identify instrumentation and quality control measures; and outline associated patient preparation. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the physics on which PET/CT are based, and discuss instrumentation (1a, 1b, 2c).
2. Describe quality control measures (acquisition and analysis) for both PET and CT that insure optimum image quality (1a, 1b, 2c).
3. Discuss the basic concepts of image reconstruction and fusion of images (1a, 1b, 2c).
4. Evaluate reconstructed images as to the quality of the image, and recognize artifacts (1a, 1b, 2c).
5. Name the PET radiopharmaceuticals and the studies they are used in; know how they are produced, physical characteristics, half-life, and method of uptake (1a, 1b, 2c).
6. Explain required preparation and exam information to a patient prior to their arrival (1a, 1b, 2c).
7. Describe in detail all patient care, including administration of the radiopharmaceutical and imaging procedure required to accomplish the study (1a, 1b, 2c).
8. Identify radiation safety issues in the PET/CT environment, and discuss how to achieve ALARA for the technologist and patient (1a, 1b, 2c).
9. Recognize normal and variant biodistribution of PET radiopharmaceuticals on an image (1a, 1b, 2c).

NMTT 2366 - Practicum III Nuclear Medicine Technolo

General

Course Key
12730

Course Rubric
NMTT

Course Number
2366

Course Title
Practicum III (or Field Experience)-Nuclear Medical Technology

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24)Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisites: BIOL-2401, BIOL-2402, and MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take BIOL-2401(12378) BIOL-2402(11828) MATH-1314(11733);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402, and MATH 1314

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Maintain and operate nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
2. Maintain and operate auxiliary nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
3. Provide proper and appropriate nursing care during nuclear medicine procedures (1a, 1b, 1c, 2a, 2b, 2c, 2e).
4. Communicate effectively with the patient, patient's family, and staff (1a, 1b, 1c, 2a, 2b, 2c, 2e).
5. Provide safe and sanitary conditions (1a, 1b, 2a, 2b, 2c, 2e).
6. Recognize and respond to emergency conditions (1a, 1b, 1c, 2a, 2b, 2c, 2e).
7. Obtain pertinent patient history (when appropriate) and check procedural contraindications (1a, 1b, 2a, 2b, 2c).
8. Prepare the patient for their procedure (1a, 1b, 1c, 2a, 2b, 2c).
9. Select and administer the appropriate radiopharmaceutical via the proper route (1a, 1b, 2a, 2b, 2c).
10. Prepare proper equipment, computer, and auxiliary equipment and acquire images as indicated by protocol (1a, 1b, 2a, 2b, 2c, 2e).
11. Process and evaluate computer-generated data (1a, 1b, 2a, 2b, 2c, 2e).
12. Prepare and perform cardiac monitoring and/or stress testing (1a, 1b, 2a, 2b, 2c, 2e).
13. Prepare/administer interventional pharmacologic agents (1a, 1b, 2a, 2c, 2e).
14. Obtain samples for non-imaging studies (1a, 1b, 2a, 2c, 2e).
15. Calculate and evaluate results on non-imaging studies (1a, 1b, 2a, 2c, 2e).

NMTT 2467 - Practicum IV Nuclear Medicine Techn

General

Course Key
12729

Course Rubric
NMTT

Course Number
2467

Course Title
Practicum IV (or Field Experience)-Nuclear Medicine Technology

Semester Credit Hours
4

Lecture Hours
0

Lab Hours
32

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-32)Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Required Prerequisite: BIOL-2401, BIOL-2402,and MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take BIOL-2401(12378) BIOL-2402(11828) MATH-1314(11733);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402,and MATH 1314

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Maintain and operate nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
2. Maintain and operate auxiliary nuclear medicine equipment (1a, 1b, 2a, 2b, 2c, 2e).
3. Provide proper and appropriate nursing care during nuclear medicine procedures (1a, 1b, 1c, 2a, 2b, 2c, 2e).
4. Communicate effectively with the patient, patient's family, and staff (1a, 1b, 1c, 2a, 2b, 2c, 2e).
5. Provide safe and sanitary conditions (1a, 1b, 2a, 2b, 2c, 2e).
6. Recognize and respond to emergency conditions (1a, 1b, 1c, 2a, 2b, 2c, 2e).
7. Obtain pertinent patient history (when appropriate) and check procedural contraindications (1a, 1b, 2a, 2b, 2c).
8. Prepare the patient for their procedure (1a, 1b, 1c, 2a, 2b, 2c).
9. Select and administer the appropriate radiopharmaceutical via the proper route (1a, 1b, 2a, 2b, 2c).
10. Prepare proper equipment, computer, and auxiliary equipment and acquire images as indicated by protocol (1a, 1b, 2a, 2b, 2c, 2e).
11. Process and evaluate computer-generated data (1a, 1b, 2a, 2b, 2c, 2e).
12. Prepare and perform cardiac monitoring and/or stress testing (1a, 1b, 2a, 2b, 2c, 2e).
13. Prepare/administer interventional pharmacologic agents (1a, 1b, 2a, 2c, 2e).
14. Obtain samples for non-imaging studies (1a, 1b, 2a, 2c, 2e).
15. Calculate and evaluate results on non-imaging studies (1a, 1b, 2a, 2c, 2e).

NUPC 1260 - Clinical-Patient Care Assistant

General

Course Key
15075

Course Rubric
NUPC

Course Number
1260

Course Title
Clinical-Patient Care Assistant

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
6

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-6) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Assist patients with activities of daily living. Utilize appropriate safety measures to prevent patient and self-injury. Assist nursing staff with admission, discharge, transfer, and transport of patients. Obtain and record patients' vital signs, heights, weights, intake and output. Perform basic skills and procedures. Maintain the comfort, privacy and confidentiality, and dignity of each patient. Learning outcomes are linked to SCANS REQUIREMENTS. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Analyze health promotion and injury prevention. (1a, 1b)
2. Describe the role of the patient care technician. (1a, 1b)
3. Describe professionalism and work ethics. (1a, 1b)
4. Demonstrate communication styles with the healthcare team and clients. (1a, 1b)
5. Explain differences in cultural competence, transcultural care and lifespan considerations. (1a, 1b, 2a, 2b)
6. Describe legal aspects of caring for the older adult and elder abuse. (1a, 1b)
7. Describe various methods of pain management. (1a, 1b)
8. Explain the value of comfort, rest and sleep regarding the client in pain. (1a, 1b)
9. Describe asepsis, healthcare-associated infections, and standard precautions. (1a, 1b, 2a, 2b, 2c)
10. Describe client safety, workplace safety, and body mechanics. (1a, 1b)
11. Demonstrate correct moving, positioning, and prevention of falls for clients. (2a, 2b)
12. Demonstrate correct measurement and recording vital signs. (1a, 1b, 2a, 2b, 2c, 2d, 2e)
13. Demonstrate aspects of proper hygiene of the client and bed making. (1a, 1b, 2a, 2b, 2c, 2d, 2e)
14. Assist with grooming and assisting with nutrition. (1a, 1b, 2a, 2b, 2c, 2d, 2e)
15. Demonstrate obtaining and monitoring an electrocardiogram. (1a, 1b, 2a, 2b, 2c, 2d, 2e)
16. Demonstrate blood and specimen collecting. (1a, 1b, 2a, 2b, 2c, 2d, 2e)
17. Explain differences in caring for clients with mental health needs. (1a, 1b)

OPTS 1266 - Clinic Practicum II

General

Course Key
14741

Course Rubric
OPTS

Course Number
1266

Course Title
Clinic Practicum II

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
15

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-15) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. This course will continue to introduce procedures for care of ophthalmology patients. Students will continue to observe techniques in various specialty clinics performed by clinical staff and begin to greet patients and start examinations by acquiring measurements and properly record results. Required Prerequisite: OPTS-1366

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take OPTS-1366;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 1366

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the basic eye examination by
    a. obtaining and properly recording the patient history and visual acuity (2a, 2b, 2c, 2d);
    b. demonstrating proper use and maintenance of instruments in exam room for routine workups, including slit lamp, phoropter, acuity chart, etc. (2a, 2b, 2c, 2d);
    c. identifying proper maintenance and stocking of examination room, including ocular medications used in the routine examination (2a, 2b, 2c);
    d. reviewing and demonstrating proper charting in the electronic medical record (2a, 2b, 2c, 2d, 2e).
2. Demonstrate proper communication and use of diagnostic instruments by
    a. utilizing proper technique and identifying normal parameters for the following ophthalmic instruments used for diagnostic testing: such as the automated visual field, retinoscopy & refraction, motility, pupil assessment and tonometry (2a, 2b, 2c, 2d);
    b. explaining purpose of diagnostic testing performed during the eye examination (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. properly documenting ocular measurements and findings (2a, 2b, 2c);
    d. enhancing communication skills with clinic staff, physicians, and patients (1a, 1b, 1c).

OPTS 1305 - Geometric Optics

General

Course Key
14742

Course Rubric
OPTS

Course Number
1305

Course Title
Geometric Optics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Introduction to the history and physics of the electromagnetic spectrum with emphasis on the reflection and refraction on prisms, and single and compound lens systems. This course will also introduce principles of physical optics and the human eye as an optical system such as: object-image relationships, magnification, simple lens systems, optical relationships of eye structures, accommodation and effects of aging, refractive errors, astigmatism, prisms and Prentice's Rule. Required Prerequisite: OPTS-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take OPTS-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 1311

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Discuss the history of optics; describe the nature of the electromagnetic spectrum and the light relationship of colors and energy levels to wave lengths; calculate for image size, position, nature, and orientation using the thin lens formulas; and calculate for and trace light rays as they pass through prisms and lenses. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of optical results in the eye by
    a. identifying the optical structures that are responsible for good vision (1a, 1b, 1c, 2a, 2b, 2c);
    b. explaining accommodation and the effects of aging to the optical system of the eye (2b, 2c);
    c. recognizing the relationship between magnification using lenses for improving vision (2a, 2b, 2c);
    d. reviewing the effect of prisms and Prentice's Rule for vision assessment (2a, 2b, 2c, 2d).
2. Demonstrate knowledge of diagnostic testing to improve optical results for the patient by
    a. explaining refractive errors and methods to neutralize them (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. explaining purpose of diagnostic testing performed to assess vision during the eye examination (2a, 2b, 2c);
    c. analyzing induced prism via Prentice's Rule (2c, 2d, 2e);
    d. identifying appropriate lens needed to neutralize refractive errors (2a, 2b, 2c).

OPTS 1311 - The Visual System

General

Course Key
14743

Course Rubric
OPTS

Course Number
1311

Course Title
The Visual System

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of the visual system including the anatomy and physiology of the eye, related structures, and diseases.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Describe the sense of vision, the development of the human eye from conception; define the major anatomical parts of the eye, the adnexa, and the visual system. Define and discuss refractive errors, disorders, diseases of the eye and their causes and treatments; list and describe various tests performed by ophthalmic personnel, instruments and devices utilized to facilitate the detection of ocular diseases and disorders.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe ocular structures by
    a. identifying the anatomy and its function in the eye (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. summarizing frequently diagnosed eye diseases affecting ocular anatomy (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Demonstrate understanding of ocular testing and diagnostic instruments by
    a. demonstrating proper use of the slit lamp for viewing the anterior segment of the eye, and identifying the parts of the slit lamp (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. performing visual acuity testing (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. discussing additional ancillary testing such as: confrontational visual fields, stereo testing, color vision testing, and pupil assessment (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Demonstrate effective communication skills by
    a. discussing eye diseases affecting ocular anatomy (1a, 1b, 2a, 2b, 2c);
    b. instructing peers or volunteer patients for ocular measurements and assessments (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. properly documenting ocular measurements and findings (1a, 1b, 1c, 2a, 2b, 2c).
4. Demonstrate empirical and quantitative skills by
    a. utilizing instruments for evaluating ocular anatomy (1a, 1b, 2a, 2b, 2c);
    b. analyzing results of ocular assessments for risk factors (2a, 2b, 2c, 2d).
5. Demonstrate critical thinking skills by
    a. properly adjusting illumination and light on the slit lamp for viewing the eye (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. assessing ocular function via confrontational visual fields, stereo testing, color vision testing, and pupil assessment (1a, 1b, 1c, 2a, 2b, 2c);
    c. identifying normal versus abnormal results or findings on ocular examination and testing (2a, 2b, 2c, 2d).

OPTS 1315 - Basic Contact Lenses

General

Course Key
14744

Course Rubric
OPTS

Course Number
1315

Course Title
Basic Contact Lenses

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) Introduction to contact lens theory and practice. Topics include the history, development, and manufacture of contact lenses; lens materials, designs, fitting, and care techniques; as well as skills necessary for the accurate measurement of lens parameters. This course will also introduce and compare similar concepts of spectacles. Required Prerequisite(s): OPTS-1311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take OPTS-1311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 1311

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: List major contributors, materials, and designs involved in the historical development of contact lenses; describe basic contact lens design and terminology; utilize contact lens instruments, tools, and gauges to determine lens parameters; list general fitting requisites, philosophies, rules for fitting contact lenses; and apply proper techniques to clean, disinfect, and sterilize contact lenses.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Review the origin of spectacles and contact lenses by
    a. describing the basic lens design for spectacles and contact lenses for single vision and multifocal options available (2a, 2b, 2c);
    b. defining key terms related to spectacles and contact lenses for the eye clinic and listing the required information for ordering contacts and spectacles (2a, 2b, 2c).
2. Demonstrate use of ophthalmic instruments used for assessment of contact lenses and spectacles by
    a. identifying proper techniques to clean and disinfect contact lenses, and instructing patients in personal care and use of contacts and spectacles (2a, 2b, 2c, 2d);
    b. demonstrating proper technique and identifying normal parameters for the ophthalmic instruments used for diagnostic testing, such as the lensometer, keratometer, slit lamp, etc. (2a, 2b, 2c, 2d, 2e).
3. Demonstrate effective communication skills by
    a. explaining purpose of diagnostic testing performed during the eye examination and/or selection of diagnostic contact lenses or spectacles (2b, 2c, 2d);
    b. properly documenting ocular measurements and findings (1a, 1b, 1c, 2a, 2b, 2c);
    c. communicating proper techniques to clean and disinfect contact lenses and to care for contact and spectacle lenses (2b, 2c).
4. Demonstrate empirical and quantitative skills by
    a. utilizing instruments for evaluating ocular anatomy and ocular functions (1a, 1b, 1c, 2a, 2b, 2c);
    b. analyzing results of ocular assessments for diagnostic lens options (1a, 1b, 1c, 2a, 2b, 2c, 2d).
5. Demonstrate critical thinking skills by
    a. applying proper technique to achieve accurate results during the eye exam (2a, 2b, 2c, 2d);
    b. identifying normal versus abnormal results or findings on ocular examination and testing (1a, 1b, 1c, 2a, 2b, 2c, 2d).

OPTS 1319 - Vision Care Office Procedures

General

Course Key
14745

Course Rubric
OPTS

Course Number
1319

Course Title
Vision Care Office Procedures

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of procedures used in an optical, optometric, or ophthalmological, office. Instruction on government, third party, and other managed care insurance claim forms, maintenance of patient records, safety regulations, correspondences and ethics. An overview of procedures used in an eye clinic including pediatric vision screening will be covered.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Identify attitudes and values that contribute to effective work habits and customer service; process, store, and retrieve patient files/records; list and complete various government and other insurance claim forms; describe local, state, and national safety regulations applicable to the industry; and discuss legality of correspondences and appropriate professional conduct and ethics.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of pharmacology treatment options for ocular conditions and ocular effects due to systemic medications by
    a. describing the reason for treatment of patients with drops, ointment, and oral medications for specific conditions (2a, 2b, 2c);
    b. identifying systemic medications that can have a secondary ophthalmic effect (2a, 2b, 2c);
    c. instilling eye drops into the eyes of patients without injury or contamination (1a, 1b, 1c, 2a, 2b, 2c).
2. Identify important legal and ethical responsibilities in the eye clinic by
    a. reviewing medical law, economics, and medical ethics including HIPAA and the relationship of the patient and physician (1a, 1b, 1c, 2a, 2b, 2c);
    b. describing workplace safety and the role of OSHA and CDC (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Perform ophthalmic clinical skills by
    a. performing pediatric vision screening (1a, 1b, 1c, 2a, 2b, 2c);
    b. administering ancillary ophthalmic diagnostic testing and demonstrating use of the slit lamp, demonstrating proper steps for eye drop instillation, identifying vital signs and normal values, using proper ophthalmic abbreviations, and conducting triage for the eye clinic (1a, 1b, 1c, 2a, 2b, 2c, 2d).
4. Demonstrate effective communication skills for the eye clinic by
    a. explaining purpose of ocular medications (1a, 1b, 1c, 2a, 2b, 2c);
    b. instructing peers or volunteer patients for instillation of eye drops and for obtaining vital signs (1a, 1b, 1c, 2a, 2b, 2c);
    c. documenting ocular measurements and findings properly (1a, 1b, 1c, 2a, 2b, 2c, 2d).
5. Demonstrate proper use of instrumentation for the eye clinic by
    a. utilizing instruments for evaluating ocular anatomy and vital signs (2a, 2b, 2c);
    b. analyzing results of ocular assessments for risk factors (including pediatric vision screening) (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. applying proper safety protocol for eye drop instillation (2a, 2b, 2c);
    d. identifying normal versus abnormal results or findings on ocular examination and testing (1a, 1b, 1c, 2a, 2b, 2c, 2d).

OPTS 1366 - Clinic Practicum I

General

Course Key
14739

Course Rubric
OPTS

Course Number
1366

Course Title
Clinic Practicum I

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
21

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-21) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. This course will continue to introduce procedures for care of ophthalmology patients. Students will observe techniques in various specialty clinics performed by clinical staff. Many procedures will be observed, but emphasis will be on basic skills needed to begin patient examination. Required Prerequisite: OPTS-2341

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take OPTS-2341;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 2341

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify elements of the routine eye exam by
    a. determining the elements of a complete patient history and properly documenting them (2a, 2b, 2c, 2d, 2e);
    b. obtaining and properly recording visual acuity (2a, 2b, 2c);
    c. identifying ophthalmic equipment and ocular medications used in the routine examination (2a, 2b, 2c);
    d. recognizing abbreviations used in the electronic medical record (2a, 2b, 2c, 2d, 2e).
2. Utilize instruments for evaluating ocular anatomy and ocular functions by
    a. demonstrating proper technique and identifying normal parameters for ophthalmic instruments used for diagnostic testing, such as the automated visual field, retinoscopy & refraction, motility, pupil assessment, and tonometry (2a, 2b, 2c);
    b. applying proper technique to achieve accurate results during the eye exam (2a, 2b, 2c, 2d).
3. Demonstrate effective communication skills by
    a. explaining purpose of diagnostic testing performed during the eye examination (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. properly documenting ocular measurements and findings (2a, 2b, 2c, 2d);
    c. enhancing communication skills observation with clinic staff (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

OPTS 1492 - Ophthalmic Seminar

General

Course Key
14738

Course Rubric
OPTS

Course Number
1492

Course Title
Ophthalmic Seminar

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) This course will address current special testing procedures not normally accomplished during routine ophthalmic examinations for common eye diseases and common ocular manifestations in systemic conditions. Introduction to billing and coding and new techniques, protocols, and emerging treatment will be reviewed. Required Prerequisites: OPTS-1266 and OPTS-1366

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take OPTS-1266 OPTS-1366;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 1266 and OPTS 1366

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of common eye diseases and ocular conditions by
    a. defining frequently encountered eye diseases involving ocular anatomy, and identifying the various types of glaucoma (2a, 2b, 2c);
    b. describing ocular manifestations seen in common systemic diseases (2a, 2b, 2c).
2. Recognize the importance of proper chart documentation by reviewing complete documentation of the ocular examination for billing and coding (2a, 2b, 2c, 2d, 2e).
3. Identify special testing conducted in the eye clinic by
    a. reviewing special ophthalmic testing such as ophthalmic imaging and photography, biometry, and supplementary tests (2a, 2b, 2c);
    b. conducting appropriate special testing procedures as needed based on ocular signs and symptoms (1a, 1b, 1c, 2a, 2b, 2c).

OPTS 2335 - Advanced Contact Lenses

General

Course Key
15580

Course Rubric
OPTS

Course Number
2335

Course Title
Advanced Contact Lenses

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) Emphasizes the knowledge and skills necessary to assist the practitioner in the dispensing, evaluation, and care of soft, rigid, toric, multi-focal, therapeutic, and other specialty contact lenses. Topics will also include keratometry, contact lenses and fitting for more advanced options for complex situations, and proper care systems. Surgical options to improve refractive status will also be reviewed. Required Prerequisites: OPTS-1315

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take OPTS-1315;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 1315

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Utilize fitting criteria to evaluate the fit of soft, rigid, spherical, toric, and multi-focal contact lenses; use and match lens care and storage solutions with the proper contact lens material and symptomatology; recognize symptomatology of adverse contact lens wear and explain refitting techniques for these conditions; explain therapeutic and cosmetic contact lens application; describe problematic concerns and solutions associated with conditions such as aphakia and keratoconus.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of contact lens options and care by
    a. explaining contact lens types, wearing schedules, and care systems (2a, 2b, 2c);
    b. identifying contact lens options based on patient history (2a, 2b, 2c);
    c. reviewing surgical options to improve refractive status (2a, 2c).
2. Demonstrate knowledge of contact lens fitting by
    a. performing keratometry and properly recording measurements (2a, 2b, 2c, 2d);
    b. calculating proper contact lens prescription from the manifest refraction (2a, 2b, 2c, 2d);
    c. selecting the appropriate base curve based on the keratometry measurement (2a, 2b, 2c, 2d);
    d. determining proper fit of contact lens and documenting findings (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Demonstrate effective communication skills during contact lens fitting by
    a. explaining proper installation and removal of contacts (2a, 2b, 2c);
    b. providing instruction on proper care of contact lenses (2a, 2b, 2c);
    c. reviewing follow up process for contact lens patients (2a, 2b, 2c, 2d).

OPTS 2341 - Ophthalmic Techniques

General

Course Key
14733

Course Rubric
OPTS

Course Number
2341

Course Title
Ophthalmic Techniques

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) Presentation of information and practical training in the techniques necessary to properly assist the eye practitioner. Topics include visual acuity assessments and performance of various preliminary diagnostic tests.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Use proper patient care skills to communicate information and to solicit pertinent information; obtain and record patients' information to complete an accurate medical history; perform various diagnostic tests using ophthalmic equipment and instruments to assist the eye practitioner in assessing visual abnormalities; and assist the eye practitioner in the performance of eye examinations and treatments.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Obtain accurate information for the eye exam by
    a. identifying the elements of the basic eye exam (2a, 2b, 2c);
    b. demonstrating the ability to obtain accurate measurements for the basic eye exam (1a, 1b, 1c, 2a, 2b, 2c);
    c. properly obtaining a complete history (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Review and perform ancillary tests conducted in the eye clinic by
    a. obtaining ancillary test results for Amsler grid, color vision, etc. (2a, 2b, 2c);
    b. explaining the importance of visual field testing and assessment of the patient for both glaucoma and neurological exams (1a, 1b, 1c, 2a, 2b, 2c);
    c. identifying vital signs and normal values (2a, 2b, 2c);
    d. applying proper technique to achieve accurate results during the eye exam (2a, 2b, 2c);
    e. identifying normal versus abnormal results for findings on ocular examination and testing (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Demonstrate effective communication skills by
    a. explaining purpose of diagnostic testing performed during the eye examination (2a, 2b, 2c);
    b. asking appropriate questions to complete a through patient history (1a, 1b, 1c, 2a, 2b, 2c);
    c. using proper ophthalmic abbreviations (2a, 2b, 2c);
    d. identifying triage tiers for the eye clinic (2a, 2b, 2c).

OPTS 2345 - Advanced Ophthalmic Techniques

General

Course Key
14731

Course Rubric
OPTS

Course Number
2345

Course Title
Advanced Ophthalmic Techniques

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Continuation of Ophthalmic Techniques. Introduction to principles and techniques of various diagnostic evaluations. Topics include refractometry and retinoscopy, ophthalmic photography, applanation tonometry, and advanced clinical assessments. An overview of standardized tools prevalent in the field will be covered. Required Prerequisite: OPTS-2341

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take OPTS-2341;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 2341

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Perform required diagnostic procedures demonstrating various methods in obtaining end results; exhibit skills in therapeutic assisting in the management of the diagnostic patient; utilize principles and calculate outcomes; document diagnostic test results and coding.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of ophthalmic diagnostic testing and procedures by
    a. determining patient's refractive correction using retinoscopy and refraction skills (2a, 2b, 2c);
    b. explaining the importance of visual field testing and assessment to the patient for both glaucoma and neurological evaluations (2a, 2b, 2c, 2d);
    c. explaining advanced ophthalmic diagnostic tests and when used (2a, 2b, 2c, 2d);
    d. recognizing minor surgery setup procedure and identifying the steps to process pathology (2a, 2b, 2c);
    e. demonstrating proper technique and identifying normal parameters for the following ophthalmic instruments used for diagnostic testing, such as the automated visual field, retinoscopy & refraction, motility, pupil assessment, and tonometry (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate effective communication in the eye clinic by
    a. explaining purpose of diagnostic testing performed during the eye examination (2a, 2b, 2c);
    b. properly documenting ocular measurements and findings (2a, 2b, 2c, 2d);
    c. enhancing communication skills via resume development and interview preparation (1a, 1b, 1c).
3. Utilizing critical thinking skills in the eye clinic by
    a. applying proper technique utilizing ophthalmic instrumentation to achieve accurate results during the eye exam (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. identifying normal versus abnormal results or findings on ocular examination and testing (1a, 1b, 1c, 2a, 2b, 2c, 2d).

OPTS 2350 - Ophthalmic Surgical Techniques

General

Course Key
14730

Course Rubric
OPTS

Course Number
2350

Course Title
Ophthalmic Surgical Techniques

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) A continuation of Ophthalmic Techniques. Introduces the student to aseptic and non-aseptic sterilization techniques used in the surgical field and provides knowledge and practice in scrubbing techniques used when assisting during ophthalmic surgical procedures. Students will learn about various ophthalmic procedures in the minor and major operating room. Required Prerequisite: OPTS-2366

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take OPTS-2366;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 2366

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: Scrub, prep a patient, and set up surgical trays for various surgical procedures; identify ophthalmic diagnostic and surgical instruments used in ophthalmic surgery; gown, glove, and identify areas of sterilization in an operating room setting; and assist the eye physician in the performance of preoperative tests.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of ophthalmic procedures by
    a. explaining pre-operative or pre-procedure protocol to prepare room and patient for procedure (2a, 2b, 2c, 2d);
    b. participating in informed consent process as a witness (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. assisting with setup, procedure, and sterilizing of instruments following procedure (2a, 2b, 2c, 2d);
    d. scheduling pre-operative and post-operative appointments and obtaining necessary measurements prior to procedure (2a, 2b, 2c, 2d).
2. Recognize safe practices for ophthalmic procedures by
    a. maintaining surgical asepsis and universal precautions (1a, 1b, 1c, 2a, 2b, 2c);
    b. defining hazardous and bio-hazardous waste and describing acceptable methods for waste disposal (2a, 2b, 2c);
    c. identifying when sterile technique is or is not met (1a, 1b, 1c, 2a, 2b, 2c);
3. Identify common ophthalmic procedures by reviewing common set up for ophthalmic procedures, instruments, and post-procedure protocols (2a, 2c).

OPTS 2366 - Clinic Practicum III

General

Course Key
14729

Course Rubric
OPTS

Course Number
2366

Course Title
Clinic Practicum III

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
21

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-21) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. This course will develop and enhance clinical skills focusing on tonometry, retinoscopy, refraction, and automated visual fields. The student will also continue to refine patient histories, basic eye exam workup, and workplace communication skills. Required Prerequisite: OPTS-1366

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take OPTS-1366;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 1366

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate basic eye exam workup and documentation by
    a. determining the patient's refractive correction using retinoscopy and refraction (2a, 2b, 2c, 2d);
    b. performing properly visual field testing via automated and manual methods and documenting findings (2a, 2b, 2c, 2d);
    c. obtaining intraocular pressure measurement using applanation tonometry methods (2a, 2b, 2c, 2d);
    d. developing efficient basic workup process including documentation in the patient chart/electronic medical record (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. demonstrating proper technique and identifying normal parameters for the ophthalmic instruments used for diagnostic testing such, as the automated visual field, retinoscopy & refraction, motility, pupil assessment, and tonometry (2a, 2b, 2c, 2d).
2. Demonstrate effective communication skills by
    a. explaining purpose of diagnostic testing performed during the eye examination (1a, 1b, 1c, 2a, 2b, 2c);
    b. properly documenting ocular measurements and findings (1a, 1b, 1c, 2a, 2b, 2c);
    c. providing appropriate communication with clinic staff and patients (2a, 2b).
3. Demonstrate common diagnostic testing performed in the eye clinic by
    a. utilizing instruments for evaluating ocular anatomy and ocular functions (2a, 2b, 2c);
    b. analyzing results of ocular assessments for diagnostic testing (1a, 1b, 1c, 2a, 2b, 2c);
    c. applying proper technique to achieve accurate results during the eye exam and identifying normal versus abnormal results or findings on ocular examination and testing (1a, 1b, 1c, 2a, 2b, 2c).

OPTS 2367 - Clinic Practicum IV

General

Course Key
14727

Course Rubric	Course Number	Course Title
OPTS	2367	Clinic Practicum IV

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	21

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-21) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. This course will be a continuation of previous clinical experiences in patient care. Students will begin to develop autonomy in patient care, and basic skills will become more advanced. Additional training and observation in the following skill areas will also include: contact lens fitting & evaluation, ophthalmic photography & imaging, biometry, ocular motility, and minor procedures. Required Prerequisite: OPTS-2366

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take OPTS-2366;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): OPTS 2366

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Standards from the International Council on Accreditation.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Obtain ocular measurements and properly document results by
    a. identifying proper technique for the following: contact lens fitting and evaluation, ophthalmic photography and imaging, biometry, and ocular motility (2a, 2b, 2c);
    b. demonstrating proper technique and identifying normal parameters for ophthalmic instruments used for diagnostic testing, such as the automated visual field, retinoscopy and refraction, motility, pupil assessment, and tonometry (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. communicating effectively by explaining purpose of diagnostic testing performed during the eye examination and properly documenting ocular measurements and findings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate proper care of ophthalmic instruments by
    a. demonstrating proper calibration, maintenance, and disinfection of the exam room and ophthalmic instruments (2a, 2b, 2c);
    b. recognizing proper preparation for minor ophthalmic procedures (2a, 2b, 2c, 2d).

OSHT 1305 - OSHA Regulations-Construction

General

Course Key
8007

Course Rubric	Course Number	Course Title
OSHT	1305	OSHA Regulations -Construction Industry

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to the construction industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the OSHA regulations, which apply to the construction industry; and demonstrate proficiency in retrieving specific information from Title 29 C.F.R. Part 1926 regulations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge and practice the safety/health issues and problems in the professional world (1a, 1b, 2c).
2. Show awareness of teamwork and individual problem solving (1a, 1b, 2a, 2b).
3. Demonstrate application of rules, standards, policies, and regulations directly related to safety/health fields (1a, 1b, 2a, 2c, 2e).
4. Show evidence of expertise and work philosophy consistent with that found in the approved subject matter (1a, 1b, 2a, 2c, 2e).
5. Show success in the assigned tasks in accordance with standard practice in the field (1a, 1b, 2a, 2c, 2e).

OSHT 1313 - Accident Prevention/Inspection/Investig

General

Course Key
15581

Course Rubric	Course Number	Course Title
OSHT	1313	Accident Prevention, Inspection and Investigation

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Provides a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the components of an effective accident investigation; analyze factors which contributed to accidents; recommend appropriate changes to prevent further accidents; and explain the components of an effective safety inspection and make appropriate recommendations to correct hazards identified by the inspection.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of safety/health issues and the topics presented by
    a. discussing the practice of safety/health issues and related problems in the professional world (1a, 1b, 2a, 2b, 2c);
    b. promoting the student's awareness of teamwork and individual problem solving (1a, 1b, 2a, 2b, 2c);
    c. practicing the application of rules, standards, policies, and regulations directly related to safety/health fields (1a, 1b, 2a, 2b, 2c);
    d. demonstrating expertise and work philosophy consistent with that found in the approved subject matter (1a, 1b, 2a, 2b, 2c);
    e. demonstrating success in the assigned tasks in accordance with standard practice in the field (1a, 1b, 2a, 2b, 2c).

OSHT 2309 - Safety Program Management

General

Course Key
8011

Course Rubric	Course Number	Course Title
OSHT	2309	Safety Program Management
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Examine the major safety management issues that affect the workplace including safety awareness, loss control, regulatory issues, and human behavior modification.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop and implement safety program; describe risk assessment or cost benefit analysis; summarize the basic components of human behavior modification; apply the components of the safety audit process including record keeping requirements.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of how to develop and implement a safety program; describe cost benefit analysis; summarize the basic components of human behavior modification; apply the components of the safety audit process including record keeping requirements by
    a. defining the different elements that compose a safety system (1a, 1b, 2b, 2c, 2d);
    b. describing the importance of system safety today (1a, 1b, 2b, 2c, 2d);
    c. describing the element of the system life cycle (1a, 1b, 2b, 2c, 2d);
    d. explaining how a system program is managed (1a, 1b, 2b, 2c, 2d);
    e. listing the different tools and techniques in the analysis of system safety (1a, 1b, 2b, 2c, 2d);
    f. explaining the concepts associated with motivation and safety (1a, 1b, 2b, 2c, 2d);
    g. differentiating between behavioral and goal directed theories of motivation (1a, 1b, 2b, 2c, 2d);
    h. explaining the principles associated with behavior modification and safety (1a, 1b, 2b, 2c, 2d);
    i. describing the importance of establishing a positive safety culture (1a, 1b, 2b, 2c, 2d);
    j. identifying the pitfalls inherent in safety incentive programs (1a, 1b, 2b, 2c, 2d);
    k. describing the benefits of employee empowerment and job enrichment (1a, 1b, 2b, 2c, 2d);
    l. defining related behavior safety terminology (1a, 1b, 2b, 2c, 2d);
    m. explaining how to implement behavioral safety processes (1a, 1b, 2b, 2c, 2d);
    n. describing techniques and benefits of safety coaching (1a, 1b, 2b, 2c, 2d);
    o. identifying best measures to track behavioral safety performance (1a, 1b, 2b, 2c, 2d);
    p. discussing success factors for improving safety performance (1a, 1b, 2b, 2c, 2d);
    q. explaining how to use behavioral approaches for continuous improvement (1a, 1b, 2b, 2c, 2d);
    r. identifying the high risk workplace environments experiencing workplace violence (1a, 1b, 2b, 2c, 2d);
    s. listing several occupations where workplace violence statistics indicate a problem of concern for the safety professional (1a, 1b, 2b, 2c, 2d);
    t. listing several factors that contribute to workplace violence (1a, 1b, 2b, 2c, 2d);
    u. explaining the importance of establishing a workplace violence prevention program (1a, 1b, 2b, 2c, 2d);
    v. describing some of the strategies that companies can use to prevent or minimize the effects of workplace violence (1a, 1b, 2b, 2c, 2d);
    w. understanding the compelling reasons for preparing for terrorist attack in business (1a, 1b, 2b, 2c, 2d);
    x. listing critical areas of concern that need to be addressed in terrorism preparation (1a, 1b, 2b, 2c, 2d);
    y. understanding the role of the safety and health professional in company terrorism planning activities (1a, 1b, 2b, 2c, 2d);
    z. developing lesson plans, teaching activities, and presentations (1a, 1b, 2b, 2c, 2d);
    aa. applying principles of learning methods and techniques of instruction to develop effective training (1a, 1b, 2a, 2b, 2c, 2d, 2e).

OSHT 2388 - Internship Occupational Safety & Health

General

Course Key
9620

Course Rubric	Course Number	Course Title
OSHT	2388	Internship -Occupational Safety and Health Technology/Technician
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	0	9

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-9). A work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. A learning plan is developed by the College and the employer.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate, as a member of a team, an understanding of the dynamic nature of criminal justice issues and the need to stay current and informed of the ever changing environment by
    a. demonstrating an ability to provide practical perspectives on the academic concepts and theories studied in the classroom (1a, 1b, 2c);
    b. demonstrating the ability to locate an organization linked to the criminal justice field and model him/herself as an employee (1a, 1b, 2c);
    c. demonstrating an understanding of system thinking in the workforce (1a, 1b, 2c).
2. Demonstrate the ability to conduct research and analysis on issues within workforce by
    a. identifying problems and solutions (1a, 1b, 2c);
    b. documenting experiences in a journal (1a, 1b, 2c);
    c. preparing written and oral reports based on the information obtained from experience (1a, 1b, 2c);
    d. delivering the report in both an oral and written format (1a, 1b, 2c).

OSHT 2401 - OSHA Regulations - General Industry

General

Course Key
8014

Course Rubric	Course Number	Course Title
OSHT	2401	OSHA Regulations -General Industry
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0). A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the OSHA regulations which apply to general industry; and demonstrate proficiency in retrieving specific information from Title 29 C.F.R. Part 1910 regulations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge and practice the safety/health issues and problems in the professional world (1a, 1b, 2c).
2. Show awareness of teamwork and individual problem solving (1a, 1b, 2a, 2b).
3. Demonstrate application of rules, standards, policies, and regulations directly related to safety/health fields (1a, 1b, 2a, 2c, 2e).
4. Show evidence of expertise and work philosophy consistent with that found in the approved subject matter (1a, 1b, 2a, 2c, 2e).
5. Show success in the assigned tasks in accordance with standard practice in the field (1a, 1b, 2a, 2c, 2e).

PFPB 1305 - Basic Blueprint Reading for Pipefitters

General

Course Key
14718

Course Rubric
PFPB

Course Number
1305

Course Title
Basic Blueprint Reading for Pipefitters

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Reading, interpreting, and sketching piping drawings. Includes isometric and orthographic views.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use blueprint vocabulary and symbols; interpret piping drawings; and demonstrate basic sketching techniques for isometric and orthographic drawings of piping components.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify parts of a drawing by
    a. explaining the title block (1a, 1b, 1c, 2a, 2c);
    b. explaining scales and measurements (1a, 1b, 1c, 2a, 2c);
    c. explaining symbols and abbreviations (1a, 1b, 1c, 2a, 2c);
    d. explaining notes (1a, 1b, 1c, 2a, 2c).
2. Demonstrate the ability to identify various types of drawings by
    a. explaining plot plans (1a, 1b, 1c, 2a, 2c, 2d);
    b. explaining structural drawings (1a, 1b, 1c, 2a, 2c, 2d);
    c. explaining isometric drawings (1a, 1b, 1c, 2a, 2c, 2d).
3. Demonstrate the ability to make field sketches by
    a. making basic isometric sketches (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. making basic orthographic sketches (1a, 1b, 1c, 2a, 2c, 2d, 2e).

PFPB 1408 - Basic Pipefitting Skills

General

Course Key
14719

Course Rubric
PFPB

Course Number
1408

Course Title
Basic Pipefitting Skills

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Mathematical operations necessary to calculate laying lengths of pipe fittings for fabrication. Identification and use of hand tools and power tools. Identification of pipe, pipefittings, flanges, and fasteners used in the trade.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply mathematical calculations applicable to pipefitting installations; demonstrate safe use of hand tools and power tools; and identify materials used in pipefitting.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of basic mathematics and plane figures by
    a. calculating angles and angular layout (1a, 1b, 1c, 2a, 2c, 2d);
    b. using calculator to calculate offsets of pipe runs (1a, 1b, 1c, 2a, 2c, 2d);
    c. demonstrating proper tool selection and procedures to lay out lateral joints (1a, 1b, 1c, 2a, 2c, 2d).
2. Demonstrate the ability to identify and use various hand and power tools by
    a. identifying and explaining how to use measuring tools (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining how to use various wrenches (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and explaining how to use various types of saws (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. identifying and explaining how to use various types of grinders (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to identify materials used in pipefitting by
    a. identifying and explaining various types of pipe (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. identifying and explaining various types of fittings and fasteners (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. identifying and explaining various flanges (1a, 1b, 1c, 2a, 2c, 2d, 2e).

PFPB 1450 - Plumbing and Pipefitting Equip & Safety

General

Course Key
14720

Course Rubric
PFPB

Course Number
1450

Course Title
Plumbing and Pipefitting Equipment and Safety

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Safe use of hand tools, power tools, rigging, and power equipment used in the plumbing trade for installation of different plumbing systems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and demonstrate the safe use of construction equipment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Define incidents and significant costs associated with them by
    a. explaining the title block (1a, 1b, 1c, 2a, 2c);
    b. explaining scales and measurements (1a, 1b, 1c, 2a, 2c);
    c. explaining symbols and abbreviations (1a, 1b, 1c, 2a, 2c);
    d. explaining notes (1a, 1b, 1c, 2a, 2c).
2. Demonstrate the ability to identify various types of drawings by
    a. explaining plot plans (1a, 1b, 1c, 2a, 2c, 2d);
    b. explaining structural drawings (1a, 1b, 1c, 2a, 2c, 2d);
    c. explaining isometric drawings (1a, 1b, 1c, 2a, 2c, 2d).
3. Demonstrate the ability to make field sketches by
    a. making basic isometric sketches (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. making basic orthographic sketches (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. identifying the common causes of incidents (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. identifying and describing proper use of personal protective equipment (1a, 1b, 1c, 2a, 2c, 2d, 2e).
4. Demonstrate the ability to describe safe work requirements for elevated work by
    a. identifying and describing various fall hazards (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and describing equipment used in fall prevention (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and describing safe use of ladders and scaffolds (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate the ability to identify and use various types of hand tools by
    a. identifying and explaining how to use hammers, chisels, screwdrivers, and wrenches (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining how to use measuring tools (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate the ability the identify and use various types of power tools by
    a. identifying and explaining how to use various types of drills (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining how to use various types of saws (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and explaining how to use various types of grinders (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate the ability to identify and use various types of rigging equipment by
    a. identifying and explaining how to use various types of slings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. describing how to inspect various types of slings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and explaining how to inspect common rigging hardware (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. identifying and explaining how to use various types of hoists (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. identifying and explaining how to use basic rigging hitches (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. explaining related Emergency Stop hand signal (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

PFPB 2407 - Pipe Fabrication and Installation I

General

Course Key
14721

Course Rubric
PFPB

Course Number
2407

Course Title
Pipe Fabrication and Installation I

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Pipe fabrication and various materials and installation of pipe supports.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Fabricate and install various types of pipe and pipe components.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to fabricate threaded types of pipe by
    a. identifying and explaining materials used in threaded piping systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. identifying and explaining pipe fittings (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. reading and interpreting screwed fitting drawings (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. identifying and explaining types of threads (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. determining pipe lengths between joints (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. threading and assembling piping and valves (1a, 1b, 1c, 2a, 2c, 2d, 2e).
2. Demonstrate the ability to fabricate socket weld piping systems by
    a. identifying and explaining types of socket weld piping materials (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. identifying and explaining socket weld fittings (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. reading and interpreting socket weld piping drawings (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. determining pipe lengths between socket weld fittings (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. fabricating socket weld fitting to pipe (1a, 1b, 1c, 2a, 2c, 2d, 2e).

PFPB 2408 - Piping Standards and Materials

General

Course Key
14722

Course Rubric
PFPB

Course Number
2408

Course Title
Piping Standards and Materials

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Identification, description, and application of piping standards and specifications. Includes identification and use of various metallic and non-metallic piping materials, identification and installation of valves, and material take-offs.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify metallic and non-metallic pipe and tubing; interpret pipe specifications; describe various types of valves and fittings; and explain valve applications.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify various types of pipe by
    a. identifying and explaining different kinds of metallic pipe (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining different kinds of non-metallic pipe (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and explaining different kinds of metallic tubing (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. identifying and explaining different kinds of non-metallic tubing (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate the ability to interpret pipe specifications by
    a. identifying and explaining pipe pressure rating (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining pipe size and schedule (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and explaining grades of pipe (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to identify different types of valves by
    a. identifying and explaining types of valves that start and stop flow (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    b. identifying and explaining valves that regulate flow (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    c. identifying and explaining valves that relieve pressure (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    d. identifying and explaining valves that regulate direction of flow (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    e. explaining factors that influence valve selection (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    f. interpreting valve markings and nameplate information (1a, 1b, 1c, 2b, 2c, 2d, 2e).

PFPB 2432 - Adv Pipefitting Standards/Spec/Install

General

Course Key
14723

Course Rubric
PFPB

Course Number
2432

Course Title
Advanced Pipefitting Standards, Specifications, and Installation

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Skill development in motorized equipment, above-ground pipe installation valves, field routing and vessel trim, spring can supports, testing piping systems and equipment, basic plumbing, planning work activities, and Non-Destructive Testing (NDT).

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain safe use of manlifts, cable lifts, hydrostatic pumps, drain cleaners, side boom tractors, and construction trucks and trailers; identify and install valves; set up construction areas including specifications, erection equipment, and support needs; identify spring can supports and demonstrate their installation; outline the sequence for planning work activities; and explain types of NDT including hazards and preparations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to identify various lifts and drain cleaners by
    a. identifying and explaining types of manlifts (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining manlift safety rules and hazards (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and explaining scissors-type manlifts (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. identifying and explaining telescoping boom manlifts (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. identifying and explaining cable lifts (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. identifying and explaining the use of drain cleaners (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate the ability to set up construction areas by
    a. identifying and securing the work area (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. determining field run specifications (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. determining required rigging equipment based on weight, location, and configuration (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. determining the load weight for erection equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to identify various spring can supports by
    a. identifying and explaining the types of spring can supports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining the types of variable spring can supports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying and explaining the types of constant spring can supports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. explaining the storing and handling of spring can supports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. explaining how to install spring can supports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate the ability to perform non-destructive testing by
    a. explaining how to perform pretest requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining how to perform service and flow test (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining how to perform head pressure test (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. explaining how to perform hydrostatic tests (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. explaining how to perform steam blow test (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. explaining non-destructive examinations (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

PFPB 2433 - Pipefitt: Adv Fabrication/Installation

General

Course Key
14724

Course Rubric
PFPB

Course Number
2433

Course Title
Pipefitting: Advanced Fabrication and Installation

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Advanced pipe fabrication and pipe alignment for rotating equipment. Includes identifying, describing, applying, and maintaining steam traps, in-line specialties, special piping, hot taps, and valves.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculating offsets and coils; fabricate miters, laterals, and dummy legs; align pipe to rotating equipment; install and troubleshoot steam traps; install in-line specialties; install flared, compression, solder, and brazed joints; install hot tap fittings; and demonstrate valve maintenance procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to calculating various offsets by
    a. calculating and explaining simple piping offsets (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. calculating and explaining three-line, 45-degree, equal-spread offsets (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. calculating and explaining three-line,45-degree, unequal-spread offsets (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate the ability to identifying tank coils by
    a. identifying and explaining heating coil (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to lay out and fabricate pipe intersections and miters by
    a. performing and explaining mitering procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. laying out and explaining three- and four-piece mitered turns (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. laying out and explaining 45-degree laterals (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. fabricating dummy legs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. performing and explaining geometric layout of pipe laterals and supports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate the ability to identifying various steam traps by
    a. identifying and explaining mechanical, thermostatic, and thermodynamic steam traps (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining how to install steam traps (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining how to troubleshoot steam traps (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate the ability to identifying in-line specialties by
    a. identifying and explaining hazards associated with in-line specialties (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining in-line specialties (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining how to store and handle in-line specialties (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate the ability to install various joints of tubing by
    a. installing and explaining flared and compression joints (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining and performing solder and braze joints (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate the ability to identifying hot taps by
    a. identifying and explaining hot tap safety (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying and explaining fittings used with hot taps (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Demonstrate the ability to explaining valve maintenance by
    a. explaining the removal and installation of threaded and flanged valves (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining the replacement of valve stem O-rings and bonnet gaskets (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining how to repack a valve (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

PFPB 2441 - Pipe Fabrication and Installation II

General

Course Key
14725

Course Rubric
PFPB

Course Number
2441

Course Title
Pipe Fabrication and Installation II

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Advanced pipe fabrication of various materials with emphasis on vertical, horizontal, and rolling off-sets using 45-degree fittings and odd-angle fittings.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Fabricate piping offsets; and develop and lay out templates of various pipe intersections and miters.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to calculate various offsets by
    a. calculating and explaining simple piping offsets (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. calculating and explaining three-line, 45-degree, equal-spread offsets (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. calculating and explaining three-line, 45-degree, unequal-spread offsets (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate the ability to develop and lay out various pipe intersections and miters by
    a. performing and explaining mitering procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. laying out and explaining three- and four-piece mitered turns (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. laying out and explaining 45-degree laterals, using references or a calculator (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. fabricating dummy legs and trunnions out of pipe, using references (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. performing and explaining geometric layout of pipe laterals and supports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

PHIL 1301 - Introduction to Philosophy

General

Course Key
16186

Course Rubric
PHIL

Course Number
1301

Course Title
Introduction to Philosophy

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A study of major issues in philosophy and/or the work of major philosophical figures in philosophy. Topics in philosophy may include theories of reality, theories of knowledge, theories of value, and their practical applications. Required Prerequisite: TSI Met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) PSYC-2301(13681) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

PHIL 1304 - Introduction to World Religions

General

Course Key
16187

Course Rubric
PHIL

Course Number
1304

Course Title
Introduction to World Religions

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A comparative study of world religions, including but not limited to Hinduism, Buddhism, Judaism, Christianity, and Islam. A one semester survey course.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHIL 2303 - Introduction to Formal Logic

General

Course Key
16188

Course Rubric
PHIL

Course Number
2303

Course Title
Introduction to Formal Logic

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The purpose of the course is to introduce the student to symbolic logic, including syllogisms, propositional and predicate logic, and logical proofs in a system of rules.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHIL 2306 - Introduction to Ethics

General

Course Key
16189

Course Rubric
PHIL

Course Number
2306

Course Title
Introduction to Ethics

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The systematic evaluation of classical and/or contemporary ethical theories concerning the good life, human conduct in society, morals, and standards of value.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHIL 2306 - Introduction to Ethics Honors

General

Course Key
16190

Course Rubric
PHIL

Course Number
2306

Course Title
Introduction to Ethics Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The systematic evaluation of classical and/or contemporary ethical theories concerning the good life, human conduct in society, morals, and standards of value.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHIL 2316 - Classical Philosophy

General

Course Key
16191

Course Rubric
PHIL

Course Number
2316

Course Title
Classical Philosophy

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Study of major philosophers and philosophical themes from the ancient through medieval periods.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHTC 1300 - Photo Digital Imaging I

General

Course Key
7537

Course Rubric
PHTC

Course Number
1300

Course Title
Photo Digital Imaging I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). An introduction to computer and software instruction for imaging. Includes color, gray scale, image conversion, presentation, and ethics. Recommended Prerequisite: ARTS-2356.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take arts-2356;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ARTS 2356

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Produce examples of photographic retouching, color corrections, copy, and photographic restoration; explain the hardware and software used in photography; and organize images.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basic functions associated with digital cameras by
    a. interpreting shutter speed and aperture settings (1a, 1b, 2c);
    b. describing the quantitative and qualitative effects of shutter speed and aperture settings (1a, 1b, 2c);
    c. manipulating camera focus to achieve visual emphasis (1a, 1b, 2c);
    d. manipulating white balance settings (1a, 1b, 2c);
    e. identifying available light qualities (1a, 1b, 2c).
2. Demonstrate the ability to identify and apply various basic artistic techniques in the completion of several shooting assignments by
    a. creating images that display a variety of lighting qualities (1a, 1b, 2c);
    b. creating images that explore spatial dimensions (1a, 1b, 2c);
    c. creating images that explore the concept of time and motion (1a, 1b, 2c);
    d. preparing a portfolio of digital images that explores a single visual idea (1a, 1b, 1c, 2c, 2e).
3. Demonstrate an understanding of digital imagery by
    a. describing digital file types (1a, 1b, 2c);
    b. demonstrating import and export of digital files (1a, 1b, 2c);
    c. summarizing the advantages of image editing software (1a, 1b, 2c);
    d. manipulating adjustment layers in image editing software (1a, 1b, 2c);
    e. demonstrating the use of filters in imaging editing software (1a, 1b, 2c);
    f. explaining image resolution (1a, 1b, 2c);
    g. demonstrating image output resolution (1a, 1b, 2c).
4. Demonstrate an understanding of scanning and printing digital images by
    a. producing a color and/or monochrome scan (1a, 1b, 2c);
    b. changing the mode of a digital file (1a, 1b, 2c);
    c. describing monitor calibration (1a, 1b, 2c);
    d. preparing a digital photographic file for printing (1a, 1b, 2c);
    e. creating a digital backup of a folder of digital photographs (1a, 1b, 2c);
    f. contracting with a photographic service bureau in the completion of a digital photographic print job (1a, 1b, 1c, 2c, 2e).

PHTC 1343 - Expressive Photography

General

Course Key
615

Course Rubric
PHTC

Course Number
1343

Course Title
Expressive Photography

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving, and the exploration of personal vision. Portfolio development and presentation are also covered. Recommended Prerequisite: ARTS-2356 or consent of instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take Arts-2356;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): ARTS 2356 or consent of instructor

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Exhibit creative visual thinking; perform and execute photographic practices that include traditional and nontraditional procedures; and interpret various types of photographic imagery.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate skill in applying photographic technology in the production of creative images by
    a. creating a photographic print transfer (1a, 1b, 2c, 2e);
    b. coating a handmade and/or printmaking paper with a photosensitive emulsion (1a, 1b, 2c);
    c. sequencing a series of photographic images (1a, 1b, 2c);
    d. demonstrating the use of good composition in image construction (1a, 1b, 2c, 2e);
    e. demonstrating the use of good color design in image construction (1a, 1b, 2c, 2e);
    f. constructing a three dimensional photographic object (1a, 1b, 2c, 2e);
    g. creating a digital large format negative (1a, 1b, 2c);
    h. drawing and/or painting on the surface of a photographic image (1a, 1b, 2c);
    i. incorporating text in a photographic image (1a, 1b, 2c);
    j. justifying various image size considerations (1a, 1b, 2c).
2. Demonstrate creative visual thinking to create a portfolio of alternative process photographic images by
    a. conceptualizing a nontraditional photographic project (1a, 1b, 2c);
    b. displaying professional craftsmanship in the production of a portfolio of nontraditional photographic images (1a, 1b, 2c, 2e);
    c. writing a concise artist's statement (1a, 1b, 2c);
    d. presenting a portfolio in group critique (1a, 1b, 2b, 2c).

PHTC 1353 - Portraiture I

General

Course Key
619

Course Rubric	Course Number	Course Title
PHTC	1353	Portraiture I
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Skill development in the photographic principles of portrait lighting, posing, and subject rapport. Required Prerequisite: ARTS-2356 or consent of the instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take arts-2356;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTS 2356 or consent of the instructor

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Use a variety of basic lighting patterns; explain the principles of subject rapport and aesthetic posing methods; produce effective finished portraits; and utilize subject analysis.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the tools and terminology of portrait photography by
    a. explaining the historical backgrounds of photographic portraiture (1a, 1b, 2c);
    b. operating a professional light meter to obtain correct exposures (1a, 1b, 2c, 2e);
    c. demonstrating skill in the creation of candid portraits executed in available light (1a, 1b, 1c, 2c, 2e);
    d. creating an effective formal environmental portrait in natural and/or available light (1a, 1b, 1c, 2c, 2e);
    e. demonstrating an understanding of studio and natural lighting qualities (1a, 1b, 2c);
    f. manipulating lighting variables to create an effective portrait in a studio (1a, 1b, 2c, 2e);
    g. recognizing effective communication skills in the making of a portrait (1a, 1b, 1c, 2c).
2. Demonstrate creative and critical visual thinking to create a portfolio of photographic portraits by
    a. conceptualizing a portrait project (1a, 1b, 2c);
    b. writing a concise artist's statement regarding a project (1a, 1b, 2c);
    c. displaying professional craftsmanship in the production of a portfolio of portrait images (1a, 1b, 2c, 2e);
    d. matting a portfolio professionally for group critique (1a, 1b, 2c, 2e);
    e. presenting and justifying a portfolio in group critique (1a, 1b, 1c, 2c).

PHTC 2331 - Architectural Photography

General

Course Key
624

Course Rubric	Course Number	Course Title
PHTC	2331	Architectural Photography
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Study of the equipment, processes, and procedures necessary for the photography of building exteriors and interiors, dusk/night and night architectural landscapes, and construction progress. Required Prerequisite: ARTS-2356 or consent of the instructor.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take arts-2356;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): ARTS 2356 or consent of the instructor

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate the use of perspective in architectural photography; exercise lighting techniques for interior and exterior exposures at different times of day; and create a portfolio on an approved architectural theme.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the tools and terminology of architectural photography by
    a. identifying the functions and components of the large format camera (1a, 1b, 2c);
    b. explaining the parts and operation of the large format lens (1a, 1b, 2c);
    c. manipulating large format lens and/or camera focus variables to achieve artistic effects (1a, 1b, 2c, 2e);
    d. demonstrating skill in the setup and use of a large format camera on a tripod in the field (1a, 1b, 2c, 2e);
    e. operating a professional light meter to obtain an accurate exposure in various lighting conditions (1a, 1b, 2c, 2e);
    f. processing images made with the large format camera successfully (1a, 1b, 2c, 2e);
    g. demonstrating the use of good composition in the making of an architectural photograph (1a, 1b, 2c, 2e);
    h. photographing a building professionally (1a, 1b, 2c, 2e);
    i. scanning a large format negative (1a, 1b, 2c, 2e).
2. Demonstrate creative and critical visual thinking to create a portfolio of architectural photographic images by
    a. conceptualizing an architectural photographic project (1a, 1b, 2c);
    b. writing a concise artist's statement regarding a project (1a, 1b, 2c);
    c. displaying professional craftsmanship in the production of a portfolio of architectural photographic images (1a, 1b, 2c, 2e);
    d. matting a portfolio professionally for group critique (1a, 1b, 2c, 2e);
    e. presenting a portfolio in group critique (1a, 1b, 1c, 2c).

PHTC 2343 - Portfolio Development

General

Course Key
8832

Course Rubric	Course Number	Course Title
PHTC	2343	Portfolio Development

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). A culmination experience for the evaluation of the student's photographic competencies. Includes association with a professional photographic organization, completion of portfolio, professional self-presentation, comprehensive exam, and seminars in areas of photographic interest.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop a portfolio or photographic work reflecting the student's strengths and capabilities; identify personal traits, mannerisms, dress, work performance, and human interaction for the primary purpose of obtaining and advancing in gainful employment; and examine opportunities in the professional community.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Modify projects for inclusion in a professional portfolio by
    a. analyzing previous class projects (1a, 1b, 2c);
    b. refining class projects (1a, 1b, 2c);
    c. categorizing projects (1a, 1b, 2c).
2. Create a professional resume for the commercial or gallery photographic community by
    a. identifying appropriate personal/professional accomplishments (1a, 1b, 2c);
    b. organizing relevant biographical and academic personal information (1a, 1b, 2c);
    c. creating a professional word processed resume document (1a, 1b, 2c).
3. Produce a personal artist's statement by
    a. describing his/her work (1a, 1b, 2c);
    b. analyzing the work's conceptual structure (1a, 1b, 2c);
    c. comparing the work to contemporary antecedents (1a, 1b, 2c);
    d. creating a word processed artist's statement document (1a, 1b, 2c).
4. Create a presentation portfolio by
    a. designing a portfolio project and producing a printed portfolio (1a, 1b, 1c, 2c);
    b. producing a web specific portfolio (1a, 1b, 2c);
    c. presenting a printed portfolio for critique (1a, 1b, 1c, 2c).
5. Evaluate peer portfolios by
    a. examining print portfolios (1a, 1b, 1c, 2b);
    b. justifying portfolio critiques (1a, 1b, 1c, 2c).

PHTC 2349 - Photo Digital Imaging II

General

Course Key
8833

Course Rubric	Course Number	Course Title
PHTC	2349	Photo Digital Imaging II

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Advanced concepts in the use of the computer and software for photographic manipulation and output.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Produce photographs that illustrate advanced manipulation and enhancement techniques; utilize computers, various photographic input and output devices, and memory and software applications; and develop a body of work that illustrates photographic skills in digital mastery and personal expression.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of photographic digital imaging terminology and tools by
    a. demonstrating the ability to analyze and correct digital files for print output and web use (1a, 1b, 2c, 2e);
    b. manipulating digital image file types and sizes (1a, 1b, 2c, 2e);
    c. modifying color and contrast within a digital image for added effect (1a, 1b, 2c, 2e);
    d. demonstrating the ability to sharpen and restore photographic images within available imaging software (1a, 1b, 2c, 2e);
    e. creating a systematic digital workflow and archiving process (1a, 1b, 2c, 2e).
2. Demonstrate the ability to identify and apply various advanced artistic techniques associated with available digital imaging software in the completion of several assignments by
    a. creating a portrait utilizing natural and/or studio lighting (1a, 1b, 2c);
    b. constructing a collage and/or montage by combining a variety of digital files (1a, 1b, 2c, 2e);
    c. demonstrating the ability to scan objects and create a digitally manipulated image that deals with a specific concept, emotion, or idea (1a, 1b, 2c, 2e).
3. Demonstrate the ability to conceptualize and design a digital photographic project by
    a. utilizing critical thinking skills to analyze current trends in photography (1a, 1b, 2c);
    b. creating a unique proposal for a body of digitally produced images (1a, 1b, 2c);
    c. preparing a written proposal for the body of work (1a, 1b, 1c, 2c);
    d. creating a body of digital images that reflects the highest standards of professional practice (1a, 1b, 2e);
    e. writing a concise artist's statement to accompany the portfolio (1a, 1b, 2c).
4. Demonstrate the ability to solve problems and to build employability skills such as critical thinking, presentation, and a professional work ethic by
    a. using critical thinking skills to communicate ideas, feelings, and emotions through digital image production (1a, 1b, 2c);
    b. utilizing professional presentation skills in group critique (1a, 1b, 1c, 2b);
    c. utilizing communication skills to work as a team member in critiquing and completing class projects (1a, 1b, 1c, 2b);
    d. exhibiting professional principles by being punctual and completing projects on deadline (1a, 1b, 1c, 2c).

PHYS 1401 - College Physics I (Lecture + Lab)

General

Course Key
16192

Course Rubric
PHYS

Course Number
1401

Course Title
College Physics I (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; emphasis will be on problem solving. Required Prerequisite: MATH-1314 and MATH-1316 or MATH-2412

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-1314(11733) MATH-1316(9763); # Take MATH-2412(9981); # Take MATH-2413 MATH-2414 MATH-2415 or MATH-2421;
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

PHYS 1402 - College Physics II (Lecture + Lab)

General

Course Key
16193

Course Rubric
PHYS

Course Number
1402

Course Title
College Physics II (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Required Prerequisite: PHYS-1401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take PHYS-1401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PHYS 1403 - Stars and Galaxies (Lecture + Lab)

General

Course Key
16194

Course Rubric
PHYS

Course Number
1403

Course Title
Stars and Galaxies (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Study of stars, galaxies, and the universe outside our solar system. Laboratory requires night observations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHYS 1404 - Solar System (Lecture + Lab)

General

Course Key
16195

Course Rubric
PHYS

Course Number
1404

Course Title
Solar System (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Study of the sun and its solar system, including its origin. Laboratory requires night observations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHYS 1415 - Physical Science I (Lecture + Lab)

General

Course Key
16196

Course Rubric
PHYS

Course Number
1415

Course Title
Physical Science I (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3)Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PHYS 2425 - University Physics I (Lecture + Lab)

General

Course Key
16197

Course Rubric
PHYS

Course Number
2425

Course Title
University Physics I (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem solving. Basic laboratory experiments supporting theoretical principles presented in lecture involving the principles and applications of classical mechanics, including harmonic motion and physical systems; experimental design, data collection and analysis, and preparation of laboratory reports. Required Prerequisite: MATH-2413

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take MATH-2413 or MATH-2513(205);
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

PHYS 2426 - Univerisity Physics II (Lecture + Lab)

General

Course Key
16198

Course Rubric
PHYS

Course Number
2426

Course Title
University Physics II (Lecture Lab)

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-3) Principles of physics for science, computer science, and engineering majors, using calculus, involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics. Laboratory experiments supporting theoretical principles presented in the lecture involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics; experimental design, data collection and analysis, and preparation of laboratory reports. Required Prerequisites: PHYS-2425 and MATH-2414

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take PHYS-2425 MATH-2414;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PLAB 1223 - Phlebotomy

General

Course Key
15073

Course Rubric
PLAB

Course Number
1223

Course Title
Phlebotomy

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-1) Skill development in the performance of a variety of blood collection methods using proper techniques and standard precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, patient identification, specimen labeling, quality assurance, specimen handling, processing, accessioning, professionalism, ethics, and medical terminology.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate infection control and safety practices; describe quality assurance as it relates to specimen collection; explain the role of specimen collection in the overall patient care system; identify collection equipment, various types of additives used, special precautions necessary, and substances that can interfere in clinical analysis of blood constituents; demonstrate venipuncture and capillary puncture; techniques on adults, children, and infants; and explain requisitioning, transport and processing.

Learning outcomes are linked to SCANS REQUIREMENTS. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the health care delivery system and medical terminology. (1a, 1b)
2. Demonstrate knowledge of infection control and safety. (1a, 1b)
3. Demonstrate basic understanding of the anatomy and physiology of body systems and anatomic terminology in order to relate major areas of the clinical laboratory to general pathologic conditions associated with the body systems. (1a, 1b)
4. Distinguish between the different types of blood vessels and blood components, and describe structure and function of each. Be able to identify blood types and explain their importance, as well as to be able to trace the flow of blood throughout the circulatory system. (1a, 1b)
5. List personnel levels in the clinical analysis areas of the laboratory and the types of laboratory procedures performed in each of the areas; Be able to associate the major areas and departments of the clinical laboratory with the laboratory tests ordered to evaluate a patient's pathologic condition or illness. (1a, 1b)
6. Validate knowledge of collection equipment, various types of additives used, special precautions necessary and substances that can interfere in clinical analysis of blood constituents. (1a, 1b)
7. Explain the importance of Timed, Fasting, and Stat specimens as related to specimen integrity in the delivery of patient care. (1a, 1b)
8. Follow standard operating procedures to collect specimens via venipuncture and capillary puncture. (1a, 1b)
9. Describe signs and symptoms of phlebotomy complications and pre-analytical errors that can significantly alter results. Be able to explain the causes of phlebotomy complications. (1a, 1b)
10. Demonstrate understanding of requisitioning, specimen transport and specimen processing. (1a, 1b)
11. Exhibit understanding of quality assurance and quality control in phlebotomy. (1a, 1b)
12. Demonstrate understanding of the basic concepts of verbal and nonverbal communications, personal and patient interaction, stress management, professional behavior and legal implications of the workplace. (1a, 1b)

PLTC 1271 - Composite Bonding

General

Course Key
14772

Course Rubric
PLTC

Course Number
1271

Course Title
Composite Bonding

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Technical Local Need

Description
(2-1-2) A skills oriented course covering composite safety, composite fabrication/bonding practices, repairing damaged structures and inspection techniques. Recommended Prerequisites: AERM-1254 and PLTC-1303

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take AERM-1254 PLTC-1303;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): AERM 1254 and PLTC 1303

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate composite fabrication/bonding practices by
    a. interpreting composite fabrication drawings (1a, 1b, 2c, 2e);
    b. demonstrating and modeling an understanding of safe composite working practices (1a, 1b, 1c, 2a, 2b);
    c. preparing composite molds and tools by applying release agents (1a, 1b, 2c, 2e);
    d. preparing fiber reinforcements, metal, and polymer resin systems for composite bonding (1a, 1c, 2a, 2c, 2e).
2. Fabricate a composite or metal bonded structure by
    a. placing and positioning fiber reinforcements or metal facings on or in a mold (1a, 1b, 2c, 2e);
    b. preparing and placing core structures on a fiber reinforcement or metal facing (1a, 1b, 2c, 2e);
    c. demonstrating vacuum bagging on a composite article (1a, 1b, 2c, 2e).
3. Cure/bond a composite article with heat by
    a. installing thermocouples on a composite article prior to curing/bonding (1a, 1b, 2c, 2e);
    b. configuring a heat source and a heat controller for composite curing/bonding (1a, 1b, 2c, 2e);
    c. operating a heat source and heat controller to cure a composite article (1a, 1b, 2c, 2d, 2e).
4. Demonstrate composite bonded repair techniques by
    a. removing damaged materials (1a, 1b, 2c, 2e);
    b. describing the procedure for removing moisture in a composite article (1a, 1b, 2c);
    c. preparing a surface for bonding (1a, 1b, 2c, 2e);
    d. fabricating repair materials (1a, 1b, 2c, 2e);
    e. bonding replacement materials (1a, 1b, 2c, 2e).
5. Demonstrate an understanding of the inspection process for a composite structure by
    a. performing and documenting the results of a composite article final inspection (1a, 1b, 2c, 2e).

PLTC 1303 - Plastic Composites

General

Course Key
11777

Course Rubric
PLTC

Course Number
1303

Course Title
Plastics Composites

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) An introductory course in techniques of combining various types of reinforcing elements with a polymer resin to yield specific characteristics and properties. Recommended Prerequisite: AERM-1254

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

Take AERM-1254;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): AERM 1254

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe polymer composites; list the methods of composite fabrications; and fabricate a composite article. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. List composite fabrication methods (1a, 1b, 2c).
2. Demonstrate composite fabrication practices by
    a. interpreting composite fabrication drawings (1a, 1b, 2c, 2e);
    b. demonstrating and modeling an understanding of safe composite working practices (1a, 1b, 1c, 2a, 2b);
    c. preparing composite molds and tools by applying release agents (1a, 1b, 2c, 2e);
    d. preparing fiber reinforcements and polymer resin systems for composite bonding (1a, 1c, 2a, 2c, 2e).
3. Fabricate a composite structure by
    a. placing and positioning fiber reinforcements on or in a mold (1a, 1b, 2c, 2e);
    b. preparing and placing core structures on fiber reinforcement (1a, 1b, 2c, 2e);
    c. demonstrating vacuum bagging on a composite article (1a, 1b, 2c, 2e).
4. Cure/bond a composite article with heat by
    a. installing thermocouples on a composite article prior to curing/bonding (1a, 1b, 2c, 2e);
    b. configuring a heat source and a heat controller for composite curing/bonding (1a, 1b, 2c, 2e);
    c. operating a heat source and heat controller to cure a composite article (1a, 1b, 2c, 2d, 2e).
5. Demonstrate composite post curing practices by
    a. trimming a composite to its net dimensions (1a, 1b, 22c, 2e);
    b. drilling holes in a composite article (1a, 1b, 2c, 2e).
6. Demonstrate secondary bonding on a composite structure by
    a. preparing a composite structure for bonding (1a, 1b, 2c, 2e);
    b. bonding specialty composite fasteners to a composite structure (1a, 1b, 2c, 2e).
7. Demonstrate an understanding of the inspection process for a composite structure by
    a. performing and documenting the results of a composite article final inspection (1a, 1b, 2c, 2e).

POFI 1449 - Spreadsheets

General

Course Key
695

Course Rubric
POFI

Course Number
1449

Course Title
Spreadsheets

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Skill development in concepts, procedures, and application of spreadsheets. This course is designed to be repeated multiple times to improve student proficiency. Recommended Prerequisite: POFT-1127 or equivalent

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take poft-1127;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): POFT 1127 or equivalent

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify spreadsheet terminology and concepts; calculate data using formulas and functions; create and modify workbooks; insert graphics; generate charts and reports; and create and use special functions. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Produce a formatted workbook by
    a. identifying the components of a spreadsheet window (1a, 1b, 2c, 2e);
    b. scrolling through a worksheet (1a, 1b, 2c, 2e);
    c. navigating between worksheets (1a, 1b, 2c, 2e);
    d. entering text, numbers, and dates into a worksheet (1a, 1b, 2c, 2e);
    e. manipulating columns and rows (1a, 1b, 2c, 2e);
    f. using editing and formatting tools (1a, 1b, 2c, 2e);
    g. manipulating cells and cell ranges (1a, 1b, 2c, 2e);
    h. saving a workbook (1a, 1b, 2c, 2e);
    i. printing a workbook (1a, 1b, 2c, 2e);
    j. closing a workbook (1a, 1b, 2c, 2e).
2. Develop formulas and functions by
    a. constructing formulas using absolute, relative, and mixed cell references (1a, 1b, 2c, 2e);
    b. understanding the syntax of a function (1a, 1b, 2c, 2e);
    c. searching for a function (1a, 1b, 2c, 2e);
    d. constructing functions using Insert Function feature and keying functions directly into cells (1a, 1b, 2c, 2e);
    e. using AutoFill (1a, 1b, 2c, 2e).
3. Produce charts and graphics by
    a. comparing chart types (1a, 1b, 2c, 2e);
    b. choosing the right chart type (1a, 1b, 2c, 2e);
    c. selecting a chart type (1a, 1b, 2c, 2e);
    d. inserting a chart (1a, 1b, 2c, 2e);
    e. manipulating charts (1a, 1b, 2c, 2e);
    f. identifying chart elements (1a, 1b, 2c, 2e);
    g. applying a chart style and layout (1a, 1b, 2c, 2e);
    h. editing chart data (1a, 1b, 2c, 2e);
    i. inserting a graphic shape (1a, 1b, 2c, 2e);
    j. formatting a graphic shape (1a, 1b, 2c, 2e).

4. Produce tables, Pivot Tables, and PivotTable charts by
    a. planning a structured range of data (1a, 1b, 2c, 2e);
    b. planning a structured table (1a, 1b, 2c, 2e);
    c. creating a structured table (1a, 1b, 2c, 2e);
    d. formatting a table (1a, 1b, 2c, 2e);
    e. manipulating records in a table (1a, 1b, 2c, 2e);
    f. sorting data in a structured table (1a, 1b, 2c, 2e);
    g. filtering data in a structured table (1a, 1b, 2c, 2e);
    h. summarizing data in a table (1a, 1b, 2c, 2e);
    i. creating a PivotTable (1a, 1b, 2c, 2e);
    j. modifying a PivotTable (1a, 1b, 2c, 2e);
    k. applying PivotTable styles (1a, 1b, 2c, 2e);
    l. formatting a PivotTable (1a, 1b, 2c, 2e);
    m. sorting a PivotTable (1a, 1b, 2c, 2e);
    n. filtering a PivotTable (1a, 1b, 2c, 2e);
    o. creating a PivotTable chart (1a, 1b, 2c, 2e).

5. Manage multiple worksheets and workbooks by
    a. creating a worksheet group (1a, 1b, 2c, 2e);
    b. manipulating multiple worksheets at one time (1a, 1b, 2c, 2e);
    c. referencing cells and ranges in other worksheets (1a, 1b, 2c, 2e);
    d. printing a worksheet group (1a, 1b, 2c, 2e);
    e. understanding when to use linked workbooks (1a, 1b, 2c, 2e);
    f. linking multiple workbooks (1a, 1b, 2c, 2e);
    g. summarizing data from linked workbooks into one (1a, 1b, 2c, 2e);
    h. managing linked workbooks (1a, 1b, 2c, 2e);
    i. creating a hyperlink (1a, 1b, 2c, 2e);
    j. producing a custom template (1a, 1b, 2c, 2e).

6. Use advanced functions and filters by
    a. working with logical functions (1a, 1b, 2c, 2e);
    b. using functions to evaluate single and multiple conditions (1a, 1b, 2c, 2e);
    c. working with financial functions (1a, 1b, 2c, 2e);
    d. understanding what if analyses (1a, 1b, 2c, 2e);
    e. developing a complex formula (1a, 1b, 2c, 2e);
    f. identifying elements of a lookup table (1a, 1b, 2c, 2e);
    g. using lookup tables (1a, 1b, 2c, 2e);
    h. using advanced filters (1a, 1b, 2c, 2e).

7. Develop a spreadsheet application by
    a. planning a spreadsheet application (1a, 1b, 2c, 2e).

POFI 2401 - Word Processing

General

Course Key
701

Course Rubric	Course Number	Course Title
POFI	2401	Desktop Publishing
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2).Word processing software focusing on business applications. This course is designed to be repeated multiple times to improve student proficiency. Recommended Prerequisite: POFT-1127 or equivalent

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take poft-1127;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): POFT 1127 or equivalent

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply basic and advanced formatting skills and special functions to produce documents. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Produce a document using Word processing software by
    a. creating a Word document (1a, 1b, 2c, 2e);
    b. saving a Word document (1a, 1b, 2c, 2e);
    c. printing a Word document(1a, 1b, 2c, 2e);
    d. entering text in a document (1a, 1b, 2c, 2e);
    e. deleting text in a document (1a, 1b, 2c, 2e);
    f. editing text in a document (1a, 1b, 2c, 2e);
    g. using undo and redo commands (1a, 1b, 2c, 2e);
    h. closing a Word document (1a, 1b, 2c, 2e).

2. Produce a formatted document using word processing software by
    a. formatting text and paragraphs in a Word document (1a, 1b, 2c, 2e);
    b. inserting a picture/clipart(1a, 1b, 2c, 2e);
    c. formatting a picture/clipart (1a, 1b, 2c, 2e);
    d. choosing a font, typeface, and type size (1a, 1b, 2c, 2e);
    e. correcting errors in a document (1a, 1b, 2c, 2e);
    f. moving text in a document (1a, 1b, 2c, 2e);
    g. finding and replacing text (1a, 1b, 2c, 2e);
    h. sorting text (1a, 1b, 2c, 2e);
    i. indenting a paragraph (1a, 1b, 2c, 2e).

3. Create a research paper by
    a. implementing the MLA documentation style (1a, 1b, 2c, 2e);
    b. changing document settings (1a, 1b, 2c, 2e);
    c. changing line and paragraph spacing (1a, 1b, 2c, 2e);
    d. inserting header and footer (1a, 1b, 2c, 2e);
    e. modifying paragraph indentation (1a, 1b, 2c, 2e);
    f. adding a footnote to a document (1a, 1b, 2c, 2e);
    g. inserting a manual page break (1a, 1b, 2c, 2e);
    h. creating a bibliographical list of sources (1a, 1b, 2c, 2e).

4. Create a cover letter and resume by

a. formatting characters and paragraphs (1a, 1b, 2c, 2e);
b. setting tab stops (1a, 1b, 2c, 2e);
c. inserting symbols (1a, 1b, 2c, 2e);
d. using tab stops (1a, 1b, 2c, 2e);
e. inserting a current date (1a, 1b, 2c, 2e);
f. using a Word template (1a, 1b, 2c, 2e);
g. copying text using clipboard (1a, 1b, 2c, 2e);
h. pasting text using clipboard (1a, 1b, 2c, 2e);
i. inserting a table in a Word document (1a, 1b, 2c, 2e);
j. entering data in a table (1a, 1b, 2c, 2e).

5. Use advanced formatting features by
   a. inserting SmartArt graphic (1a, 1b, 2c, 2e);
   b. formatting SmartArt graphic (1a, 1b, 2c, 2e);
   c. creating character style (1a, 1b, 2c, 2e);
   d. applying character style (1a, 1b, 2c, 2e);
   e. inserting a watermark (1a, 1b, 2c, 2e);
   f. inserting a section break (1a, 1b, 2c, 2e);
   g. adding picture bullets (1a, 1b, 2c, 2e);
   h. drawing a table (1a, 1b, 2c, 2e).
6. Use shape and drawing canvas by
   a. inserting drawing canvas (1a, 1b, 2c, 2e);
   b. inserting a shape (1a, 1b, 2c, 2e);
   c. applying a shape style (1a, 1b, 2c, 2e);
   d. modifying a shape on a drawing canvas (1a, 1b, 2c, 2e);
   e. resizing a drawing canvas (1a, 1b, 2c, 2e).
7. Generate merge documents by
   a. creating form letter (1a, 1b, 2c, 2e);
   b. creating data source (1a, 1b, 2c, 2e);
   c. editing data source (1a, 1b, 2c, 2e);
   d. inserting merge fields (1a, 1b, 2c, 2e);
   e. creating multilevel list (1a, 1b, 2c, 2e);
   f. merging form letter (1a, 1b, 2c, 2e);
   g. creating mailing labels (1a, 1b, 2c, 2e);
   h. creating envelopes (1a, 1b, 2c, 2e);
   i. merging data record to directory (1a, 1b, 2c, 2e).
8. Create a professional newsletter by
   a. creating WordArt (1a, 1b, 2c, 2e);
   b. formatting WordArt (1a, 1b, 2c, 2e);
   c. inserting floating graphic (1a, 1b, 2c, 2e);
   d. formatting floating graphic (1a, 1b, 2c, 2e);
   e. creating a multicolumn document (1a, 1b, 2c, 2e);
   f. inserting column break (1a, 1b, 2c, 2e);
   g. creating a drop cap character (1a, 1b, 2c, 2e);
   h. inserting a text box (1b, 2c, 2e);
   i. adding a page border (1a, 1b, 2c, 2e).

POFI 2431 - Desktop Publishing

General

Course Key
7572

Course Rubric	Course Number	Course Title
POFI	2431	Introduction to Keyboarding
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2). In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications. This course is designed to be repeated multiple times to improve student proficiency. Recommended Prerequisite: POFT-1329 or proficiency in word processing software

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take poft-1329;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): POFT 1329 or proficiency in word processing software

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define desktop publishing terminology; manipulate text and graphics to create balanced and focused layout, and create fliers, brochures, and multiple page documents. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Create an office publication by
   a. defining desktop publishing (1a, 1b, 2c, 2e);
   b. describing the publisher window (1a, 1b, 2c, 2e);
   c. demonstrating the ability to create and design a flyer (1a, 1b, 2c, 2e);
   d. editing text, objects, and graphics (1a, 1b, 2c, 2e);
   e. demonstrating the ability to save and print publication (1a, 1b, 2c, 2e);
   f. demonstrating the ability to close, reopen, and modify publication (1a, 1b, 2c, 2e);
   g. converting the print publication to a web flyer (1a, 1b, 2c, 2e).
2. Create a newsletter by
   a. explaining the advantages of using a newsletter medium and identifying the steps in its design process (1a, 1b, 2c, 2e);
   b. using template with font and color schemes and specifying the page layout (1a, 1b, 2c, 2e);
   c. typing articles, importing articles, and continuing stories across pages (1a, 1b, 2c, 2e);
   d. demonstrating the ability to insert, delete, and navigate pages in newsletter (1a, 1b, 2c, 2e);
   e. demonstrating the ability to import graphics and resize objects (1a, 1b, 2c, 2e);
   f. creating captions, sidebars, and pull quotes (1a, 1b, 2c, 2e);
   g. inserting page numbers in headers and footers (1a, 1b, 2c, 2e);
   h. using correct cut, copy, and paste techniques (1a, 1b, 2c, 2e);
   i. proofing newsletter for spelling and design errors (1a, 1b, 2c, 2e);
   j. saving newsletter and printing using duplex printing (1a, 1b, 2c, 2e).
3. Create a trifold brochure by
   a. explaining the advantages of the brochure medium (1a, 1b, 2c, 2e);
   b. using brochure options (1a, 1b, 2c, 2e);
   c. using brochure template and specifying the layout options (1a, 1b, 2c, 2e);
   d. editing brochure template text boxes (1a, 1b, 2c, 2e);
   e. demonstrating the ability to create and edit signup form (1a, 1b, 2c, 2e);
   f. creating color scheme and style (1a, 1b, 2c, 2e);
   g. creating font style and formatting paragraphs (1a, 1b, 2c, 2e);
   h. creating and formatting logo (1a, 1b, 2c, 2e);
   i. creating WordArt object (1a, 1b, 2c, 2e);

j. using spell check to proof the brochure (1a, 1b, 2c, 2e);

k. using design checker to proof design (1a, 1b, 2c, 2e);

l. choosing appropriate printing services, paper, and color libraries (1a, 1b, 2c, 2e);

m. preparing the brochure for outside printing (1a, 1b, 2c, 2e).

4. Produce a business information set by

a. defining business information set (1a, 1b, 2c, 2e);

b. creating blank publication and specifying the page layout (1a, 1b, 2c, 2e);

c. creating business information set (1a, 1b, 2c, 2e);

d. creating letterhead (1a, 1b, 2c, 2e);

e. demonstrating the ability to insert and edit graphic image (1a, 1b, 2c, 2e);

f. saving edited graphic as picture file (1a, 1b, 2c, 2e);

g. demonstrating the ability to insert and format AutoShapes using fill effects (1a, 1b, 2c, 2e);

h. inserting a date that updates automatically (1a, 1b, 2c, 2e);

i. demonstrating the ability to create, edit, and format table (1a, 1b, 2c, 2e);

j. creating business card (1a, 1b, 2c, 2e);

k. closing publications without quitting (1a, 1b, 2c, 2e).

5. Generate merged publications and data by

a. demonstrating the ability to use letterhead template and specify the layout options (1a, 1b, 2c, 2e);

b. creating mailing list (1a, 1b, 2c, 2e);

c. creating form letter and merging the mailing list data (1a, 1b, 2c, 2e);

d. demonstrating the ability to create and print merged labels (1a, 1b, 2c, 2e);

e. printing publication (1a, 1b, 2c, 2e).

6. Create interactive website by

a. using website template options (1a, 1b, 2c, 2e);

b. editing navigation bar (1a, 1b, 2c, 2e);

c. demonstrating the ability to create and use bookmark (1a, 1b, 2c, 2e);

d. applying animated graphics and alternative text (1a, 1b, 2c, 2e);

e. setting web page options (1a, 1b, 2c, 2e);

f. using return data values (1a, 1b, 2c, 2e);

g. creating an HTML code fragment (1a, 1b, 2c, 2e);

h. using VBA to create message box (1a, 1b, 2c, 2e);

i. setting security level (1a, 1b, 2c, 2e).

7. Demonstrate software product integration by

a. incorporating parts of files or entire files as objects from one application to another application (1a, 1b, 2c, 2e);

b. using copy and paste, copy and embed, and copy and link (1a, 1b, 2c, 2e);

c. defining Object Linking and Embedding (OLE) (1a, 1b, 2c, 2e);

d. embedding worksheet in a publication (1a, 1b, 2c, 2e);

e. linking worksheet to a publication (1a, 1b, 2c, 2e).

POFT 1127 - Introduction to Keyboarding

General

Course Key
15

Course Rubric	Course Number	Course Title
POFT	1127	Introduction to Keyboarding
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
1	0	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3). Skill Development in keyboarding techniques. Emphasis on the development of acceptable speed and accuracy.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate basic keyboarding techniques. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to operate the keyboard by touch by

a. manipulating the alphabet keys (1a, 1c, 2c, 2e);

b. manipulating the number keys (1a, 1c, 2c, 2e);

c. manipulating the symbol keys (1a, 1c, 2c, 2e).

2. Demonstrate basic keyboarding skill through timed writings by

a. completing one minute timings (1a, 1b, 1c, 2a, 2e);

POFT 1301 - Business English

General

Course Key
11778

Course Rubric
POFT

Course Number
1301

Course Title
Business English

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply the basic rules of grammar, spelling, capitalization, number usage, and punctuation; utilize terminology applicable to technical and business writing; develop proofreading and editing skills; and write sentences and paragraphs. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate correct grammar skills for business by
    a. identifying grammar errors, including spelling, capitalization, number usage, and incorrect punctuation (1a, 1b, 2c, 2e);
    b. correcting grammar errors, including spelling, capitalization, number usage, and incorrect punctuation (1a, 1b, 2c, 2e);
2. Demonstrate skill in business and technical vocabulary by
    a. identifying terminology applicable to technical and business writing (1a, 1b, 2b, 2c);
    b. utilizing terminology applicable to technical and business writing (1a, 1b, 2b, 2c);
3. Demonstrate proofreading and editing skills by
    a. identifying errors and utilizing proofreading marks to indicate corrections (1a, 1b, 2c, 2e);
    b. making editing corrections found while proofreading (1a, 1b, 2c, 2e);
    c. organizing paragraph sentences (1a, 1b, 2c, 2e);
    d. building coherent paragraphs (1a, 1b, 2c, 2e);
4. Demonstrate basic writing skills by
    a. composing effective sentences for business applications (1a, 1b, 2c, 2e);
    b. organizing paragraph sentences for business applications (1a, 1b, 2c, 2e);
    c. building coherent paragraphs for business applications (1a, 1b, 2c, 2e);

POFT 1319 - Records and Information Management

General

Course Key
27

Course Rubric
POFT

Course Number
1319

Course Title
Records and Information Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Introduction to basic records information management systems including manual and electronic filing.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the stages in the life cycle of a record; file and retrieve records using filing systems; and differentiate between manual and electronic filing. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to file and retrieve records using the alphabetic method of storage by
    a. explaining the need for indexing rules in alphabetic storage of records and the importance of following these rules consistently (1a, 1b, 1c, 2c);
    b. demonstrating the ability to index, code, and arrange personal and business names in indexing order (1a, 1b, 2c);
    c. demonstrating the ability to prepare and arrange cross references for personal and business names (1a, 1b, 1c, 2c);
    d. applying ten basic alphabetic indexing rules (1a, 1b, 1c, 2c);
    e. sorting records alphabetically (1a, 1b, 1c, 2c).
2. Demonstrate the ability to file and retrieve records using the subject method of storage by
    a. defining subject records management (1a, 1b, 2c);
    b. listing advantages and disadvantages of storing and retrieving records by subject method of storage (1a, 1b, 1c, 2c);
    c. comparing the dictionary and encyclopedic subject file arrangements (1a, 1b, 1c, 2c);
    d. demonstrating the ability to store and retrieve records following subject records procedures (1a, 1b, 1c, 2c).
3. Demonstrate an understanding of records using the numeric method of storage by
    a. explaining numeric records management, including reasons for its use (1a, 1b, 1c, 2c);
    b. identifying similarities and differences in consecutive, terminal digit, and middle digit numeric records storage (1a, 1b, 1c, 2c);
    c. identifying similarities and differences in block numeric, duplex numeric, decimal numeric, and alphanumeric coding (1a, 1b, 1c, 2c);
    d. defining chronologic records storage and explaining its use (1a, 1b, 1c, 2c).
4. File and retrieve records using the geographic records method of storage by
    a. identifying the kinds of businesses that might use the geographic method of storage (1a, 1b, 1c, 2c);
    b. comparing dictionary and encyclopedic arrangements of geographic records (1a, 1b, 1c, 2c);
    c. contrasting the lettered guide plan and the location name guide plan (1a, 1b, 1c, 2c);
    d. differentiating between indexing and coding for the geographic storage method and indexing and coding for the alphabetic storage method (1a, 1b, 1c, 2c);
    e. explaining how files are arranged using compass terms and how this method differs from general alphabetic filing (1a, 1b, 1c, 2c).
5. Demonstrate an understanding of electronic file management by
    a. differentiating between manual and electronic filing (1a, 1b, 1c, 2c, 2e);
    b. demonstrating the ability to enter, sort, and query data in an electronic database (1a, 1b, 1c, 2c, 2e);
    c. managing electronic information (1a, 1b, 1c, 2c, 2e).

POFT 1329 - Beginning Keyboarding

General

Course Key
7573

Course Rubric	Course Number	Course Title
POFT	1329	Beginning Keyboarding

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Skill development in keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Placement test available.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate basic keyboarding techniques; apply proofreading and editing skills; and create basic business documents. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Operate the keyboard by touch by
    a. manipulating the alphabet keys by touch (1a, 1c, 2c, 2e);
    b. manipulating the number keys by touch (1a, 1c, 2c, 2e);
    c. manipulating the symbol keys by touch (1a, 1c, 2c, 2e).
2. Complete reports using word processing software by
    a. constructing business reports with side headings, paragraph headings, lists, multi-pages, footnotes, margins, headers, quotations, bibliographies, reference list pages, works cited pages, title page, and table of contents using basic proofreaders' marks (1a, 1b, 2a, 2c, 2e);
    b. constructing academic reports with lists, indented displays, author/year citations, hanging indent, tab set, and dot leaders (1a, 1b, 2a, 2c, 2e).
3. Complete business correspondence using word processing software by
    a. formatting business letters (both block and modified block) which include personal titles, complimentary closings, lists, enclosure notation, attachments, copy notations, and post script (1a, 1b, 2a, 2c, 2e);
    b. creating envelopes and labels (1a, 1b, 2a, 2c, 2e);
    c. constructing memorandums (1a, 1b, 2a, 2c, 2e);
    d. constructing personal business letters (1a, 1b, 2a, 2c, 2e).
4. Create tables by
    a. creating boxed tables (1a, 1b, 2a, 2c, 2e);
    b. creating open tables with titles and/or column headings (1a, 1b, 2a, 2c, 2e);
    c. creating tables with numbered columns (1a, 1b, 2a, 2c, 2e).
5. Produce employment documents using word processing software by
    a. creating traditional resumes (1a, 1b, 2a, 2c, 2e);
    b. creating electronic resumes (1a, 1b, 2a, 2c, 2e);
    c. creating letters of application (1a, 1b, 2a, 2c, 2e);
    d. creating follow up letters (1a, 1b, 2a, 2c, 2e).
6. Complete straight copy timed writings demonstrating basic keyboarding skill by
    a. completing one minute timings within given district speed and accuracy guidelines (1a, 1b, 1c, 2a, 2e);
    b. completing three or five minute timings within given district speed and accuracy guidelines (1a, 1b, 1c, 2a, 2e).

POFT 1409 - Administrative Office Procedures I

General

Course Key
11779

Course Rubric	Course Number	Course Title
POFT	1409	Administrative Office Procedures

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) Study of current office procedures, duties, and responsibilities applicable to an office environment. Recommended Prerequisite: Basic Keyboarding skills

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Develop time management techniques; demonstrate communication skills; and identify basic skills of an office professional. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of general office duties by
    a. demonstrating telephone techniques (1a, 1b, 2c, 2d, 2e);
    b. demonstrating mail procedures (1a, 1b, 2c, 2d, 2e);
    c. greeting visitors (1a, 1b, 2c, 2d, 2e);
    d. handling office correspondence (1a, 1b, 2c, 2d, 2e);
    e. demonstrating the ability to arrange and conduct meetings (1a, 1b, 2c, 2d, 2e);
    f. making travel arrangements (1a, 1b, 2c, 2d, 2e).
2. Demonstrate accepted office qualities that emulate professionalism by
    a. demonstrating responsibility, dependability, self-management, and integrity (1a, 1b, 1c, 2b);
    b. demonstrating leadership, respect for diversity, ability to change, and ability to handle stress (1a, 1b, 1c, 2b).
3. Demonstrate acceptable procedures for the employment process by
    a. preparing a resume (1a, 1b, 2a, 2c, 2e);
    b. preparing a cover letter (1a, 1b, 2a, 2c, 2e);
    c. preparing a follow up letter (1a, 1b, 2a, 2c, 2e).
4. Develop a portfolio that includes but is not limited to the student's interview documents, examples of class work, honors and recognitions received, community service involvement, letters of recommendation, certificates and degrees, transcripts, and licenses (1a, 1b, 1c, 2a, 2c, 2d, 2e).

POFT 2312 - Business Correspondence & Communication

General

Course Key
11741

Course Rubric
POFT

Course Number
2312

Course Title
Business Correspondence and Communication

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Development of writing and presentation skills to produce effective business communications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): Basic Keyboarding skills

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Create effective business documents; evaluate business documents; and apply ethical communication practices. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the communication process by
    a. identifying the steps in the communication process (1a, 1b, 2c);
    b. identifying ways to improve listening skills (1a, 1b, 1c, 2c);
    c. identifying the role of nonverbal communication (1a, 1b, 2c);
    d. identifying examples of how differing cultures affect communication (1a, 1b, 2b, 2c).
2. Demonstrate skill in business style writing by
    a. writing using the You view (1a, 1b, 2b, 2c);
    b. writing using conversational, professional tone (1a, 1b, 2b, 2c);
    c. writing using positive and courteous language (1a, 1b, 2b, 2c);
    d. writing using inclusive language (1a, 1b, 2b, 2c);
    e. writing using easy to understand business language (1a, 1b, 2b, 2c).
3. Demonstrate good grammar skills acceptable for business by
    a. demonstrating the ability to identify and correct grammar errors including sentence faults (fragments, run on sentences, and comma splices), dangling and misplaced modifiers, nonparallel series, singular/plural disagreement, incorrect verb tenses, and incorrect punctuation (1a, 1b, 2c, 2e);
    b. demonstrating the ability to identify and correct business writing errors including flabby expressions, long lead ins, fillers, redundancies, trite phrases, jargon, slang, buried verbs, and vague words (1a, 1b, 2c, 2e);
    c. demonstrating proper use of active voice and passive voice (1a, 1b, 2c, 2e);
    d. organizing paragraph sentences (1a, 1b, 2c, 2e);
    e. building coherent paragraphs (1a, 1b, 2c, 2e).
4. Write effective business messages by
    a. composing effective email messages (1a, 1b, 2c, 2e);
    b. composing effective positive business messages using the direct pattern, correct grammar, and proper business formatting (1a, 1b, 2c, 2e);
    c. composing effective negative business messages using the indirect pattern, correct grammar, and proper business formatting (1a, 1b, 2c, 2e);
    d. composing effective persuasive business messages using the persuasive pattern, correct grammar, and proper business formatting (1a, 1b, 2c, 2e);
    e. composing an effective resume using correct grammar and formatting (1a, 1b, 1c, 2c, 2e).
5. Demonstrate the ability to research and write a documented business report and/or give an oral presentation by
    a. researching a chosen topic (1a, 1b, 1c, 2a, 2c, 2e);
    b. writing a report using acceptable business language (1a, 1b, 1c, 2a, 2c, 2e);
    c. correctly formatting the report (1a, 1b, 2c, 2e);
    d. documenting all sources correctly (1a, 1b, 1c, 2c, 2e);
    e. analyzing the topic and presenting findings, conclusions, and recommendations (1a, 1b, 1c, 2c, 2e);
    f. identifying good presentation skills (1a, 1b, 1c, 2c, 2e).

PSTR 1206 - Cake Decorating I

General

Course Key
11780

Course Rubric
PSTR

Course Number
1206

Course Title
Cake Decorating I

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2) Introduction to skills, concepts and techniques of cake decorating.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Produce a variety of commercially acceptable decorated cakes using a variety of techniques. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify and use various decorating tips (1a, 1b, 2b).
2. Identify and use a paper cone and pastry bag (1a, 1b, 2b).
3. Prepare icings and blend colors (1a, 1b, 2b).
4. Ice various cake layer sizes (1a, 1b, 2b).
5. Make flowers on cake and nail (1a, 1b, 2b).

PSTR 1301 - Fundamentals of Baking

General

Course Key
11781

Course Rubric	Course Number	Course Title
PSTR	1301	Fundamentals of Baking

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Fundamentals of baking including dough, quick breads, pies, cakes, cookies, and tarts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and explain baking terms, ingredients, equipment, and tools; scale and measure ingredients; convert and cost recipes; operate baking equipment and tools; prepare yeast products, quick breads, pies, tarts, cookies, various cakes, icings, and demonstrate fundamental decorating techniques; and produce commercially acceptable baked products. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of baking terms by
    a. differentiating between terms (1a, 1b);
    b. demonstrating baking terms correctly (1a, 1b, 2b).
2. Demonstrate an understanding of ingredients by
    a. differentiating between ingredients (1a, 1b);
    b. explaining functions of ingredients (1a, 1b);
    c. selecting proper ingredients (1a, 1b);
    d. preparing items (1a, 1b);
    e. demonstrating the ability to scale and measure ingredients (1a, 1b, 2b).
3. Demonstrate familiarity with equipment/tools by
    a. operating baking equipment and tools safely (1a, 1b, 2b);
    b. demonstrating proper sanitation and upkeep of equipment and tools (1a, 1b, 2b).
4. Demonstrate the ability to convert and cost recipes by
    a. converting recipes by increasing and decreasing amounts precisely (1a, 1b, 2c);
    b. preparing a recipe with conversions (1a, 1b, 2b);
    c. costing ingredients within a recipe, for the total recipe and per portion (1a, 1b).
5. Prepare various bakeshop products by
    a. preparing quick breads (1a, 1b, 2b);
    b. preparing pies (1a, 1b, 2b);
    c. preparing tarts (1a, 1b, 2b);
    d. preparing cookies (1a, 1b, 2b);
    e. preparing various cakes (1a, 1b, 2b);
    f. preparing icings (1a, 1b, 2b);
    g. producing commercially acceptable baked products (1a, 1b, 2b).
6. Demonstrate decorating techniques by
    a. demonstrating simple cake decorating techniques, to include rosette, shell and rope borders, rosebuds and drop flowers, leaves and stems, and writing on cakes (1a, 1b, 2b).

PSTR 1305 - Breads and Rolls

General

Course Key
15327

Course Rubric	Course Number	Course Title
PSTR	1305	Breads and Rolls

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Concentration on fundamentals of chemically and yeast raised breads and rolls. Instruction on commercial preparation of a wide variety of products. Identify and explain baking terms, ingredients, equipment, and tools; scale and measure ingredients; convert and cost recipes; safely operate baking equipment and tools; and prepare yeast and quick breads and rolls to a commercially acceptable standard.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and explain baking terms, ingredients, equipment, and tools; scale and measure ingredients; convert and cost recipes; safely operate baking equipment and tools; and prepare yeast and quick breads and rolls to a commercially acceptable standard. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify volume measure containers (1a, 1b).
2. Describe volume/weight relationship of ingredients (1a, 1b, 2b).
3. Describe functions of ingredients of yeast products (1a, 1b).
4. Identify steps involved in yeast dough production and baking (1a, 1b).
5. Control texture and temperature in manual and mechanical mixing methods of doughs (1a, 1b).
6. Convert formulas using baker's percentages (1a, 1b, 2c).
7. Prepare a wide variety of baked goods to a commercially acceptable standard, including, but not limited to, yeast doughs and quick breads (1a, 1b, 2b).
8. Cost formulas manually and using a computer program (1a, 1b, 2c).
9. Utilize proper sanitation and safety techniques (1a, 1b, 2b).
10. Function in a group atmosphere (1a, 1b).
11. Realize the sense of urgency in a professional bakeshop (1a, 1b).

PSTR 1310 - Pies, Tarts, Teacakes and Cookies

General

Course Key
12241

Course Rubric
PSTR

Course Number
1310

Course Title
Pies, Tarts, Teacakes and Cookies

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4) Focus on preparation of American and European style pie and tart fillings and dough, cookies, teacakes, custard and batters. Instruction of finishing and presentation techniques. Produce a variety of commercially acceptable pies, tarts, teacakes and cookies; identify and produce finishing and presentation techniques. Required Prerequisites: PSTR-1301 and CHEF-1305 with a minimum grade of C.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take PSTR-1301 or PSTR-1401; Minimum grade C; #TAKE CHEF-1205 or CHEF-1305; Minimum grade C;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Produce a variety of commercially acceptable pies, tarts, teacakes and cookies; identify and produce finishing and presentation techniques. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe functions of ingredients in baked goods (1a, 1b).
2. Convert formulas using baker's percentages (1a, 1b, 2c).
3. Prepare a wide variety of baked goods to a commercially acceptable standard, including, but not limited to, pie and tart doughs, pies and fillings, teacakes, frostings, filled cookies, and some specialty pastries (1a, 1b, 2b).
4. Cost formulas manually and using a computer program (1a, 1b, 2c).
5. Utilize proper sanitation and safety techniques (1a, 1b, 2b).
6. Function in a professional manner in a group atmosphere (1a, 1b).

PSTR 1442 - Quantity Bakeshop Production

General

Course Key
12242

Course Rubric
PSTR

Course Number
1442

Course Title
Quantity Bakeshop Production

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Advanced baking techniques to include volume production of a variety of breads and desserts. Demonstrate advanced baking techniques in the quantity production of breads and desserts to meet commercially acceptable standards. Licensing/Certification Agency: American Culinary Federation Educational Institute Required Prerequisites: PSTR-1301 and CHEF-1305 with a minimum grade of C.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take PSTR-1301 or PSTR-1401; Minimum grade C; #TAKE CHEF-1205 or CHEF-1305; Minimum grade C;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): PSTR 1301 and CHEF 1305 with a minimum grade of C

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate advanced baking techniques in the quantity production of breads and desserts to meet commercially acceptable standards.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply commercially acceptable safety and sanitation standards to the bakeshop (1a, 1b, 2b).
2. Prepare a wide variety of baked goods to a commercially acceptable standard (1a, 1b, 2b).
3. Write production plans, schedules, and task lists (1a, 1b, 2c).
4. Create menu pricing based on food costs (1a, 1b).
5. Demonstrate understanding of details of recipe conversions (1a, 1b).
6. Use baker's percentages (1a, 1b).

PSTR 2207 - Cake Decorating II

General

Course Key
11784

Course Rubric
PSTR

Course Number
2207

Course Title
Cake Decorating II

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2)A course in decoration of specialized and seasonal products. Required Prerequisite: PSTR-1206

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take PSTR-1206;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): PSTR 1301 and CHEF 1305 with a minimum grade of C

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Produce a variety of commercially acceptable decorated products using a variety of techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify and use various decorating tips (1a, 1b, 2a).
2. Identify and use a paper cone and pastry bag (1a, 1b, 2a).
3. Use an airbrush to decorate cakes (1a, 1b, 2a).
4. Make flowers from gum paste (1a, 1b, 2a).
5. Produce shaped cakes without the use of specialty pans (1a, 1b, 2a).
6. Apply fondant to cakes (1a, 1b, 2a).

PSTR 2331 - Advanced Pastry Shop

General

Course Key
12243

Course Rubric
PSTR

Course Number
2331

Course Title
Advanced Pastry Shop

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations. Apply pastry shop techniques including recipe modifications; prepare laminated dough's, choux, pastries, meringues, creams, custards, puddings, and related sauces; and prepare a variety of hot souffles, fritters, crepes, cobblers, crisps and assorted inlays to include sugars and chocolates. Emphasis on advanced techniques. Required Prerequisites: PSTR-1301 and CHEF-1305 with minimum grade of C.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take PSTR-1401 or PSTR-1301; Minimum grade C; # Take CHEF-1205 or CHEF-1305(11754); Minimum grade C;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Requirements
Required Prerequisite(s): PSTR 1206

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply pastry shop techniques including recipe modifications; prepare laminated dough, choux, pastries, meringues, creams, custards, puddings, and related sauces; and prepare a variety of hot soufflés, fritters, crepes, cobblers, crisps, and assorted inlays to include sugars and chocolates.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the application of mixes and other labor saving products (1a, 1b).
2. Identify nutritional concerns as they apply to the pastry shop by
    a. modifying recipes (1a, 1b, 2c).
3. Prepare a variety of advanced pastry items by
    a. preparing laminated dough (1a, 1b, 2a);
    b. preparing choux (1a, 1b, 2a);
    c. preparing pastries (1a, 1b, 2a);
    d. preparing meringues (1a, 1b, 2a);
    e. preparing creams, custards, puddings, and related sauces (1a, 1b, 2a);
    f. preparing hot soufflés (1a, 1b, 2a);
    g. preparing fritters (1a, 1b, 2a);
    h. preparing crepes (1a, 1b, 2a);
    i. preparing cobblers and crisps (1a, 1b, 2a);
    j. preparing assorted inlays to include sugars and chocolates (1a, 1b, 2a).

PSYC 1300 - Learning Framework

General

Course Key
16199

Course Rubric
PSYC

Course Number
1300

Course Title
Learning Framework

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A study of the 1)research and theory in the psychology of learning, cognition, and motivation, 2)factors that impact learning, and 3)application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned.(NOTE: While traditional study skills courses include some of the same learning strategies - e.g.,note-taking, reading, test preparation etc. - as learning framework courses, the focus of study skills courses is solely or primarily on skill acquisition. Study skills courses, which are not under-girded by scholarly models of the learning process, are not considered college-level, and, therefore, are distinguishable from Learning Framework courses.)Students may NOT earn credit for both EDUC-1300 and PSYC-1300.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PSYC 2301 - General Psychology

General

Course Key
16200

Course Rubric
PSYC

Course Number
2301

Course Title
Corequisite General Psychology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. Required Co-Requisite: INRW-0399 or INRW-0114

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

A Co-Requisite of either INRW-0114 or INRW-0399 will be required with this course.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

Take INRW-0399 or INRW-0114;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

PSYC 2301 - General Psychology

General

Course Key
16201

Course Rubric
PSYC

Course Number
2301

Course Title
General Psychology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. Required Prerequisite: TSI met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

PSYC 2301 - General Psychology Honors

General

Course Key
16202

Course Rubric
PSYC

Course Number
2301

Course Title
General Psychology Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. Required Prerequisite:TSI compliant in Reading

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) or SOCI-1301(13682); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

PSYC 2306 - Human Sexuality

General

Course Key
16203

Course Rubric
PSYC

Course Number
2306

Course Title
Human Sexuality

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives - biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PSYC 2308 - Child Psychology

General

Course Key
16204

Course Rubric
PSYC

Course Number
2308

Course Title
Child Psychology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course will address psychological development from conception through middle childhood with references to physical, cognitive, social and personality changes. Students will examine the interplay of biological factors, human interaction, social structures and cultural forces in development. Recommended Prerequisite: PSYC-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take psyc-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PSYC 2314 - Life Span Growth and Development

General

Course Key
16205

Course Rubric
PSYC

Course Number
2314

Course Title
Life Span Growth and Development

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Life-Span Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death. Recommended Prerequisite: PSYC-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take psyc-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PSYC 2315 - Psychology of Adjustment

General

Course Key
16206

Course Rubric
PSYC

Course Number
2315

Course Title
Psychology of Adjustment

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). Study of the processes involved in adjustment of individuals to their personal and social environments.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

PSYC 2316 - Psychology of Personality

General

Course Key
16207

Course Rubric
PSYC

Course Number
2316

Course Title
Psychology of Personality

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Study of various approaches to determinants, development, and assessment of personality. Includes contemporary theories of personality with emphasis on personality dynamics. Individual personality trends stressed with attention to group interaction. Recommended Prerequisite: PSYC-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take psyc-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PSYC 2317 - Statistical Methods in Psychology

General

Course Key
16208

Course Rubric
PSYC

Course Number
2317

Course Title
Statistical Methods in Psychology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course covers descriptive and inferential statistics used in psychological research and assessment. It includes measurement, characteristics of distributions; measures of central tendency and variability; transformed scores; correlation and regression; probability theory; and hypotheses testing and inference. (PSYC 2317 is included in the Psychology Field of Study.) Required Prerequisite(s): PSYC-2301 and MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take PSYC-2301 MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PSYC 2319 - Social Psychology

General

Course Key
16209

Course Rubric
PSYC

Course Number
2319

Course Title
Social Psychology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Study of individual behavior within the social environment. Topics may include socio-psychological process, attitude formation and change, interpersonal relations, group processes, self, social cognition, and research methods. (PSYC-2319 is included in the Psychology Field of Study.) Required Prerequisite: PSYC-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PSYC 2320 - Abnormal Psychology

General

Course Key
16210

Course Rubric
PSYC

Course Number
2320

Course Title
Abnormal Psychology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course provides an introduction to the psychological, biological, and socio-cultural factors involved in the development, diagnosis, and treatment of psychological disorders. It includes a review of the historical understanding of abnormal behavior and the development of modern diagnostic systems. It includes discussion of psychological research and practice as it relates to mental health and psychological functioning, as well as legal and ethical issues. (PSYC 2320 is included in the Psychology Field of Study.) Required Prerequisite(s): PSYC-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take PSYC-2301(9797);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PSYC 2330 - Biological Psychology

General

Course Key
16211

Course Rubric
PSYC

Course Number
2330

Course Title
Biological Psychology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) An introduction to the biological bases of behavior. Topics include evolution, genetics, research methods in behavioral neuroscience, motivation and emotion, sensation and perception, learning and memory, lifespan development, cognition, psychological disorders, and other complex behaviors. (PSYC 2330 is included in the Psychology Field of Study.) Required Prerequisite(s): PSYC-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take PSYC-2301(9797);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

PSYT 1313 - Psychology of Personal Adjustment

General

Course Key
10555

Course Rubric
PSYT

Course Number
1313

Course Title
Psychology of Personal Adjustment

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of personal, social, and work adjustment skills.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): PSYC 2301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify decision making, goal setting, assertiveness, career development, and conflict resolution skills for personal and social adjustment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the concept of self and personal adjustment and demonstrate an increased personal awareness (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Demonstrate an understanding of the nature of stress, major types of stress, coping mechanisms, and wellness strategies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate an understanding of the impact communication has on relationships and why it is important to adjustment (1a, 1b, 1c, 2a, 2b, 2c, 2d).
4. Understand the power of social pressure and persuasion (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate knowledge of life management skills, goal setting, and techniques to balance multiple roles (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Explain how thinking can influence feelings (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
7. Demonstrate reflective and critical thinking to apply course material to improve thinking, problem solving, and decision making (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

PSYT 2339 - Counseling Theories

General

Course Key
254

Course Rubric
PSYT

Course Number
2339

Course Title
Counseling Theories

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An examination of evidence-based and contemporary counseling theories which may include psychodynamic, cognitive, behavioral and humanistic.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Differentiate among major theories and their approaches to counseling; and define and explain techniques relevant to the major theories.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the purpose and need for counseling theories by
    a. displaying ability to enumerate basic division of theories (1a, 1b, 1c, 2a, 2c);
    b. constructing a view of nature of man based on four major theories (1a, 1b, 2a, 2c);
    c. explaining the counselor's values and philosophy of life and relationship to therapeutic theory constructs (1a, 1b, 1c, 2a, 2c);
    d. explaining issues faced by beginning counselors in choosing and understanding various counseling theories to be applied (1a, 1b, 2a, 2c).
2. Demonstrate an understanding of a counselor as a therapeutic person by
    a. developing a diagram of a fully developed helper (1a, 1b, 1c, 2a, 2c);
    b. displaying competencies in multicultural counseling (1a, 1b, 2a, 2c);
    c. explaining empathy, including elements of empathic understanding and responding (1a, 1b, 2a, 2c);
    d. defining eight uses of empathy (1a, 1b, 2a, 2c);
    e. developing the art of probing (1a, 1b, 2a, 2c);
    f. developing the art of reflective listening and reproducing attending skills ladder (1a, 1b, 2a, 2c).
3. Demonstrate an understanding of the structure of personality based on Freud's theory, Erickson's theory, Rogers's theory, Adler's theory, Glasser's theory, Ellis's theory, Motivational Interviewing theory, and Transactional Analysis theory by
    a. explaining key concepts of each theory (1a, 1b, 2a, 2c);
    b. defining major techniques and procedures for each theory (1a, 1b, 2a, 2c);
    c. explaining similarities and differences in the client's experience in each theory (1a, 1b, 2a, 2c);
    d. identifying assessment techniques for each theory (1a, 1b, 2a, 2c);
    e. explaining the therapist's role in each theory (1a, 1b, 2a, 2c);
    f. explaining the relationship between client and therapist for each theory (1a, 1b, 2a, 2c);
    g. examining appropriateness for use of theory with children and adolescents in each theory (1a, 1b, 1c, 2a, 2c).

PSYT 2345 - Principles Behavior Mgt & Modification

General

Course Key
8680

Course Rubric	Course Number	Course Title
PSYT	2345	Principles of Behavior Management and Modification

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An analysis of behavior management and cognitive theories and techniques with emphasis on their applications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply behavioral management and cognitive theories to formulate various behavior management plans; and utilize behavioral techniques and strategies.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the definition and theoretical history of behavior therapy and cognitive theories by
    a. defining assigned terms related to behavior therapy (1a, 1b, 2c);
    b. writing behavioral management plan (1a, 1b, 2c);
    c. identifying effective therapy techniques (1a, 1b, 2c);
    d. explaining the treatment process based on experiments in behavior therapy research (1a, 1b, 2a, 2c);
    e. applying ethical principles to use of behavior therapy (1a, 1b, 1c, 2c);
    f. explaining Ellis' ABC theory (1a, 1b, 2c);
    g. describing learning, heredity, and biology as related to behavior therapy (1a, 1b, 2c);
    h. defining target behaviors and maintaining conditions (1a, 1b, 2c).
2. Demonstrate an understanding of positive and negative reinforcement and methods of administration of behavioral reinforcers by
    a. identifying positive and negative reinforcers (1a, 1b, 2c);
    b. describing methods for reinforcing behaviors to decelerate other behaviors (1a, 1b, 2a, 2c);
    c. describing methods of identifying reinforcers (1a, 1b, 2a, 2c);
    d. defining prompting and stimulus control (1a, 1b, 2a, 2c);
    e. describing case studies in behavior therapy research (1a, 1b, 2c).
3. Demonstrate an understanding of cognitive behavioral therapy and behavior management by
    a. defining prompting and stimulus control (1a, 1b, 2c);
    b. differentiating characteristics of behavioral assessment (1a, 1b, 2c);
    c. producing a behavioral management program (1a, 1b, 2a, 2c);
    d. describing a cognitive behavioral program (1a, 1b, 2a, 2c);
    e. describing learning, heredity, and biology related to behavior therapy (1a, 1b, 2a, 2c).

PTHA 1201 - The Profession of Physical Therapy

General

Course Key
12244

Course Rubric	Course Number	Course Title
PTHA	1201	The Profession of Physical Therapy

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Introduction to the profession of physical therapy and the role of the physical therapist assistant.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the history, purpose, and scope of physical therapy; identify the roles and responsibilities of the physical therapist assistant.

Upon successful completion of this course, students will:

1. Analyze the Texas Physical Therapy Practice Act and Rules by
    a. explaining the legal and ethical roles of the physical therapist (PT), physical therapist assistant (PTA), and physical therapy aide in clinical practice (1a, 1b, 2d);
    b. explaining initial and renewal licensure requirements (1a, 1b, 2d);
    c. identifying specific incidences where disciplinary action of licensees by the Texas Board of Physical Therapy Examiners can occur (1a, 1b, 2d);
    d. explaining procedures for reporting illegal and/or unethical practice to the Texas Board of Physical Therapy Examiners (1a, 1b, 2d).
2. Analyze the health care system by
    a. discussing medical and physical therapy reimbursement (1a, 1b, 2d);
    b. discussing fiscal responsibility in physical therapy practice (1a, 1b, 2d);
    c. discussing the health insurance industry, including Medicare and Medicaid (1a, 1b, 2d);
    d. identifying the systems found in a typical hospital (1a, 1b, 2d);
    e. discussing management issues and theories (1a, 1b, 2d).
3. Explore the practice of physical therapy by
    a. discussing the history of the field of physical therapy (1a, 1b, 2d);
    b. describing the practice settings for PTs and PTAs (1a, 1b, 2d);
    c. discussing the role of professional organizations such as the American Physical Therapy Association (1a, 1b, 2d).

PTHA 1225 - Communication in Health Care

General

Course Key
11081

Course Rubric	Course Number	Course Title
PTHA	1225	Communication in Health Care
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
2	2	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-1). Communication theories and principles for optimal delivery of health care.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the theories and principles of effective communication; apply effective communication skills.

Upon successful completion of this course, students will:

1. Demonstrate awareness of skills required to accurately and effectively convey one's thoughts and emotions, verbally and in written communications by
    a. describing problems resulting from the ineffective use of communication (1a, 1b, 1c, 2c, 2d, 2e);
    b. demonstrating awareness of how to improve communication (1a, 1b, 1c, 2c, 2d, 2e);
    c. demonstrating the importance of ethics in communication (1a, 1b, 1c, 2c, 2d, 2e);
    d. giving examples of the importance of cultural competency in communication (1a, 1b, 1c, 2c, 2d, 2e);
    e. explaining the importance of nonverbal communication (1a, 1b, 1c, 2c, 2d, 2e);
    f. comparing conversational communication with patient communication (1a, 1b, 1c, 2c, 2d, 2e);
    g. applying the principles of medical documentation (1a, 1b, 1c, 2c, 2d, 2e);
    h. performing patient communication scenarios (1a, 1b, 1c, 2c, 2d, 2e);
    i. presenting a therapy program to another student (1a, 1b, 1c, 2c, 2d, 2e).
2. Present an effective, informative patient case report to an audience by
    a. locating appropriate supporting materials from written and electronic sources (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. using effective visuals (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. displaying effective delivery techniques (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. displaying professional behavior (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. using appropriate medical and physical therapy terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e).

PTHA 1321 - Pathophysiology for the PTA

General

Course Key
9625

Course Rubric	Course Number	Course Title
PTHA	1321	Pathophysiology for the PTA
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Study of the pathophysiology of diseases/conditions encountered in physical therapy. [Enrollment in this course is restricted to students who have been accepted to the Physical Therapist Assistant program. This course does not replace HPRS-2201.]

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the etiology, pathogenesis, signs/symptoms, and treatments of selected diseases/conditions; identify the impact of the pathologies in physical therapy.

Upon successful completion of this course, students will:

1. Analyze the pathophysiology of certain human diseases/conditions as they relate to physical therapy treatment by
    a. identifying etiology and epidemiology of disease (1a, 1b, 2c, 2d);
    b. describing clinical signs and symptoms (1a, 1b, 2c, 2d);
    c. describing secondary complications (1a, 1b, 2c, 2d);
    d. identifying medical treatment (1a, 1b, 2c, 2d);
    e. describing physical therapy interventions and data collection (1a, 1b, 2c, 2d);
    f. explaining goals of physical therapy treatment (1a, 1b, 2c, 2d);
    g. defining and applying appropriate medical terminology (1a, 1b, 2c, 2d).
2. Present an effective informational speech to an audience by
    a. locating appropriate supporting materials from written and electronic sources (1a, 1b, 1c, 2b, 2c, 2e);
    b. using appropriate visuals effectively (1a, 1b, 1c, 2b, 2c, 2e);
    c. demonstrating appropriate public speaking behavior (1a, 1b, 1c, 2b, 2c, 2e);
    d. displaying effective delivery techniques (1a, 1b, 1c, 2b, 2c, 2e).
3. Compose an informational report on an assigned human disease/condition by
    a. locating appropriate supporting materials from written and electronic sources (1a, 1b, 1c, 2b, 2c, 2e);
    b. using appropriate medical terminology (1a, 1b, 1c, 2b, 2c, 2e);
    c. following the American Medical Association style guide (1a, 1b, 1c, 2b, 2c, 2e).

PTHA 1405 - Basic Patient Care Skills

General

Course Key
313

Course Rubric
PTHA

Course Number
1405

Course Title
Basic Patient Care Skills

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4). The application of basic patient handling, functional skills, communication, and selected data collection techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe principles and techniques of patient handling and functional skills; demonstrate performance of basic patient handling and functional skills; demonstrate selected data collection techniques; and demonstrate communication skills.

Upon successful completion of this course, students will:

1. Demonstrate competency in physical therapy skills appropriate for a PTA by
    a. demonstrating select intervention skills in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. demonstrating select data collection skills in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. displaying professional behavior in the laboratory setting (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. operating physical therapy machinery and tools safely (1a, 1b, 1c, 2a, 2b, 2c, 2e).
2. Discuss patient care skills related to physical therapy by
    a. discussing gait training with assistive devices (1a, 1b, 2a, 2c);
    b. discussing basic wound management (1a, 1b, 2a, 2c);
    c. explaining infection control procedures (1a, 1b, 2a, 2c);
    d. discussing basic therapeutic exercise (1a, 1b, 2a, 2c);
    e. discussing patient transfers and bed mobility (1a, 1b, 2a, 2c).

PTHA 1413 - Functional Anatomy

General

Course Key
320

Course Rubric
PTHA

Course Number
1413

Course Title
Functional Anatomy

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4). The relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Locate the musculoskeletal and neurological structures of the human body; differentiate between normal and abnormal movement.

Upon successful completion of this course, students will:

1. Explain basic principles of human movement by
    a. applying osteokinematic and arthrokinematic principles (1a, 1b, 2c);
    b. using appropriate anatomical terminology (1a, 1b, 2c);
    c. identifying the function and structure of muscles, ligaments, tendons, nerves, bones, joints, and other body tissues (1a, 1b, 2c).
2. Demonstrate palpation skills of anatomical structures using a laboratory partner by
    a. relating anatomical structures of the musculoskeletal system with surface anatomy landmarks (1a, 1b, 1c, 2b, 2c);
    b. comparing anatomical structures of varying body types (1a, 1b, 1c, 2b, 2c);
    c. displaying professional behavior (1a, 1b, 1c, 2b, 2c).

PTHA 1431 - Biophysical Agents

General

Course Key
15206

Course Rubric
PTHA

Course Number
1431

Course Title
Biophysical Agents

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4). Biophysical principles, physiological effects, efficacy, and application of physical agents.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the biophysical principles and efficacy of physical agents; relate knowledge of indications, contraindications and precautions to interventions; apply physical agents; demonstrate communication skills.

Upon successful completion of this course, students will:

1. Analyze the use of physical agents used in clinical practice by
    a. identifying indications and contraindications (1a, 1b, 2c);
    b. describing the physiological effects (1a, 1b, 2c);
    c. explaining appropriate parameters of treatment (1a, 1b, 2c);
    d. applying medical and physical therapy terminology (1a, 1b, 2c).
2. Demonstrate select physical agents using a laboratory partner by
    a. applying patient positioning and draping principles (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. using appropriate medical and physical therapy terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. operating physical therapy machinery and tools safely (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. selecting appropriate parameters of treatment (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. displaying professional behavior (1a, 1b, 1c, 2a, 2b, 2c, 2e).

PTHA 2201 - Essentials of Data Collection

General

Course Key
7170

Course Rubric	Course Number	Course Title
PTHA	2201	Essentials of Data Collection

Semester Credit Hours	Lecture Hours	Lab Hours
2	1	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-4). Data collection techniques used to assist in patient/client management.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Perform data collection techniques; identify changes in data collected. Report results.

Upon successful completion of this course, students will:

1. Analyze human gait by
    a. identifying normal and abnormal gait components (1a, 1b, 1c, 2a, 2b, 2c);
    b. explaining phases and sub-phases of gait (1a, 1b, 1c, 2a, 2b, 2c);
    c. describing muscle actions during phases of gait (1a, 1b, 1c, 2a, 2b, 2c);
    d. identifying gait deviations in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c).
2. Explore human joint goniometry by
    a. identifying normal joint range of motion values (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. explaining pathological and non-pathological influences on joint motions (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. describing common goniometric procedures (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. demonstrating goniometric joint measurements in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c, 2e).
3. Explore muscle testing by
    a. explaining purposes of muscle testing (1a, 1b, 1c, 2a, 2b, 2c);
    b. comparing use of manual and mechanical testing (1a, 1b, 1c, 2a, 2b, 2c);
    c. explaining scales/grades used with manual muscle testing (1a, 1b, 1c, 2a, 2b, 2c);
    d. demonstrating manual muscle testing in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c).

PTHA 2239 - Professional Issues

General

Course Key
332

Course Rubric	Course Number	Course Title
PTHA	2239	Professional Issues

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Discussion of professional issues and behaviors related to clinical practice; preparation for transition into the workforce.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Prepare for licensure, employment, and professional development; identify legal, ethical, and professional behaviors.

Upon successful completion of this course, students will:

1. Prepare for taking the PTA Board Exam by
    a. producing a computerized, comprehensive exit exam (1a, 1b, 2a, 2c, 2e);
    b. determining weak areas of knowledge (1a, 1b, 2a, 2c, 2e);
    c. locating and using appropriate resources for preparation (1a, 1b, 2a, 2c, 2e);
    d. recalling and composing summaries of professional journal articles related to physical therapy (1a, 1b, 2a, 2c, 2e).
2. Prepare and give a continuing education program to fellow classmates by
    a. reviewing professional journal articles related to topic (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. creating appropriate program, considering content and audience (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. planning and scheduling the program within a specific timeframe (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. creating summary of attended programs given by peers (1a, 1b, 1c, 2a, 2b, 2c, 2e).

PTHA 2360 - Clinical - Physical Therapist Asstant

General

Course Key
11079

Course Rubric
PTHA

Course Number
2360

Course Title
Clinical - Physical Therapist Assistant

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
15

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-15) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Demonstrate professional attributes identified as essential to that required of an entry level PTA by
    a. seeking out learning opportunities (1a, 1b, 1c, 2a, 2b);
    b. recognizing fiscal obligations to facility and customers (1a, 1b, 1c, 2a, 2d);
    c. participating in own performance appraisal using the PTA MACS clinical grading tool (1a, 1b, 1c, 2d);
    d. following Texas Physical Therapy Practice Act and Rules (1b, 1c, 2b, 2d);
    e. respecting patient dignity and rights (1a, 1b, 1c, 2b, 2c, 2d);
    f. exhibiting professional behaviors (1a, 1b, 1c, 2b, 2c, 2d);
    g. applying appropriate communication skills (1a, 2b);
    h. following the American Physical Therapy Association's guide for ethical conduct (1a, 1b, 1c, 2a, 2b, 2d);
    i. developing positive working relationships with staff (1b, 1c, 2b);
    j. following facility policy and procedures (1a, 1b, 1c, 2b, 2d);
    k. demonstrating continuous self-assessment and improvement (1a, 1b, 1c, 2b).
2. Provide appropriate patient care and treatment by
    a. performing assigned duties of intern PTA under direction and supervision of a licensed physical therapist (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. reacting to normal and abnormal patient responses (1a, 1b, 1c, 2b, 2c);
    c. applying medical and physical therapy principles (1a, 1b, 2a, 2c);
    d. applying problem solving and critical thinking skills (1a, 1b, 2a, 2b, 2c, 2d);
    e. demonstrating selected interventions and data collection skills (1a, 1b, 2a, 2c, 2e);
    f. employing safe work practices (1b, 1c, 2b, 2d);
    g. applying classroom theory to clinical situations (1a, 2b, 2c);
    h. documenting patient treatment in medical record (1a, 1b, 2a, 2c, 2d, 2e);
    i. incorporating newly learned skills into practice (1a, 1b, 1c, 2a, 2c, 2d);
    j. modifying interventions within Plan of Care to fit patient needs (1a, 1b, 1c, 2a, 2b, 2c, 2d).

PTHA 2361 - Clinical - Physical Therapist Asstant

General

Course Key
11080

Course Rubric
PTHA

Course Number
2361

Course Title
Clinical - Physical Therapist Assistant

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
15

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-15) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Demonstrate professional attributes identified as essential to that required of an entry level PTA by
    a. seeking out learning opportunities (1a, 1b, 1c, 2a, 2b);
    b. recognizing fiscal obligations to facility and customers (1a, 1b, 1c, 2a, 2d);
    c. participating in own performance appraisal using the PTA MACS clinical grading tool (1a, 1b, 1c, 2d);
    d. following Texas Physical Therapy Practice Act and Rules (1b, 1c, 2b, 2d);
    e. respecting patient dignity and rights (1a, 1b, 1c, 2b, 2c, 2d);
    f. exhibiting professional behaviors (1a, 1b, 1c, 2b, 2c, 2d);
    g. applying appropriate communication skills (1a, 2b);
    h. following the American Physical Therapy Association's guide for ethical conduct (1a, 1b, 1c, 2a, 2b, 2d);
    i. developing positive working relationships with staff (1b, 1c, 2b);
    j. following facility policy and procedures (1a, 1b, 1c, 2b, 2d);
    k. demonstrating continuous self-assessment and improvement (1a, 1b, 1c, 2b).
2. Provide appropriate patient care and treatment by
    a. performing assigned duties of intern PTA under direction and supervision of a licensed physical therapist (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. reacting to normal and abnormal patient responses (1a, 1b, 1c, 2b, 2c);
    c. applying medical and physical therapy principles (1a, 1b, 2a, 2c);
    d. applying problem solving and critical thinking skills (1a, 1b, 2a, 2b, 2c, 2d);
    e. demonstrating selected interventions and data collection skills (1a, 1b, 2a, 2c, 2e);
    f. employing safe work practices (1b, 1c, 2b, 2d);
    g. applying classroom theory to clinical situations (1a, 2b, 2c);
    h. documenting patient treatment in medical record (1a, 1b, 2a, 2c, 2d, 2e);
    i. incorporating newly learned skills into practice (1a, 1b, 1c, 2a, 2c, 2d);
    j. modifying interventions within Plan of Care to fit patient needs (1a, 1b, 1c, 2a, 2b, 2c, 2d).

PTHA 2363 - Clinical - Physical Therapist Assistant

General

Course Key
12245

Course Rubric
PTHA

Course Number
2363

Course Title
Clinical -Physical Therapist Assistant

Semester Credit Hours
3

Lecture Hours
0

Lab Hours
15

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-15). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This is the capstone clinical experience.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Demonstrate professional attributes identified as essential to that required of an entry level PTA by
    a. seeking out learning opportunities (1a, 1b, 1c, 2a, 2b);
    b. recognizing fiscal obligations to facility and customers (1a, 1b, 1c, 2a, 2d);
    c. participating in own performance appraisal using the PTA MACS clinical grading tool (1a, 1b, 1c, 2d);
    d. following Texas Physical Therapy Practice Act and Rules (1b, 1c, 2b, 2d);
    e. respecting patient dignity and rights (1a, 1b, 1c, 2b, 2c, 2d);
    f. exhibiting professional behaviors (1a, 1b, 1c, 2b, 2c, 2d);
    g. applying appropriate communication skills (1a, 2b);
    h. following the American Physical Therapy Association's guide for ethical conduct (1a, 1b, 1c, 2a, 2b, 2d);
    i. developing positive working relationships with staff (1b, 1c, 2b);
    j. following facility policy and procedures (1a, 1b, 1c, 2b, 2d);
    k. demonstrating continuous self-assessment and improvement (1a, 1b, 1c, 2b).
2. Provide appropriate patient care and treatment by
    a. performing assigned duties of intern PTA under direction and supervision of a licensed physical therapist (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. reacting to normal and abnormal patient responses (1a, 1b, 1c, 2b, 2c);
    c. applying medical and physical therapy principles (1a, 1b, 2a, 2c);
    d. applying problem solving and critical thinking skills (1a, 1b, 2a, 2b, 2c, 2d);
    e. demonstrating selected interventions and data collection skills (1a, 1b, 2a, 2c, 2e);
    f. employing safe work practices (1b, 1c, 2b, 2d);
    g. applying classroom theory to clinical situations (1a, 2b, 2c);
    h. documenting patient treatment in medical record (1a, 1b, 2a, 2c, 2d, 2e);
    i. incorporating newly learned skills into practice (1a, 1b, 1c, 2a, 2c, 2d);
    j. modifying interventions within Plan of Care to fit patient needs (1a, 1b, 1c, 2a, 2b, 2c, 2d).

PTHA 2409 - Therapeutic Exercise

General

Course Key
13634

Course Rubric
PTHA

Course Number
2409

Course Title
Therapeutic Exercise

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4). Concepts, principles, and application of techniques related to therapeutic exercise and functional training.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the principles of therapeutic exercise; formulate a rationale for the implementation of therapeutic exercise; demonstrate techniques of therapeutic exercise and functional training; execute patient education; and demonstrate communication skills.

Upon successful completion of this course, students will:

1. Demonstrate competency in therapeutic exercise in a laboratory setting by
    a. demonstrating select intervention skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. demonstrating select data collection skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. displaying professional behavior (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. operating physical therapy machinery and tools safely (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. identifying treatment contraindications (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. selecting effective treatment parameters (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    g. using appropriate medical and physical therapy terminology (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    h. applying principles of arthrokinematics and osteokinematics (1a, 1b, 1c, 2a, 2b, 2c, 2e).
2. Analyze the therapeutic exercises used with physical therapy patients who have select body disorders or dysfunctions by
    a. identifying treatment indications and contraindications (1a, 1b, 2c, 2e);
    b. describing the etiology and clinical manifestations of the disorders (1a, 1b, 2c, 2e);
    c. identifying effective treatment parameters (1a, 1b, 2c, 2e);
    d. comparing the various forms of therapeutic exercise (i.e. stretching, strengthening, and aerobic) (1a, 1b, 2c, 2e);
    e. creating a diagnosis specific exercise program (1a, 1b, 2c, 2e).

PTHA 2431 - Management of Neurological Disorders

General

Course Key
351

Course Rubric
PTHA

Course Number
2431

Course Title
Management of Neurological Disorders

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) Comprehensive rehabilitation techniques of selected neurological disorders. An advanced course.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the management of patients with neurological disorders; demonstrate rehabilitation techniques for neurological disorders; demonstrate communication skills.

Upon successful completion of this course, students will:

1. Analyze the physical therapy and medical treatment of select neurological disorders by
    a. explaining principles of motor learning and motor control (1a, 1b, 2c, 2d);
    b. describing the clinical manifestations of the disorders (1a, 1b, 2c, 2d);
    c. explaining the use of pharmacological agents with the disorders (1a, 1b, 2c, 2d);
    d. describing appropriate physical therapy interventions and data collection (1a, 1b, 2c, 2d);
    e. identifying neuroanatomical structures (1a, 1b, 2c, 2d).
2. Demonstrate competency in physical therapy skills in a laboratory setting by
    a. demonstrating select intervention skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. demonstrating select data collection skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. displaying professional behavior (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. operating physical therapy machinery and tools safely (1a, 1b, 1c, 2a, 2b, 2c, 2e).

PTHA 2435 - Rehabilitation Techniques

General

Course Key
356

Course Rubric
PTHA

Course Number
2435

Course Title
Rehabilitation Techniques

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-4) Comprehensive rehabilitation of selected diseases and disorders. An advanced course integrating previously learned and new skills and techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe physical therapy management of patients with selected diseases and disorders; demonstrate rehabilitation techniques for diseases and disorders; and demonstrate communication skills.

Upon successful completion of this course, students will:

1. Explore the use of physical therapy with women's health issues by
    a. discussing health issues related specifically to women (1a, 1b, 1c, 2a, 2b, 2c);
    b. discussing appropriate interventions and data collection (1a, 1b, 1c, 2a, 2b, 2c);
    c. demonstrating selected interventions and data collection skills in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c);
    d. displaying professional behaviors (1a, 1b, 1c, 2a, 2b, 2c).
2. Explore the use of medical prosthetics and orthotics by
    a. discussing the purpose for using a particular prosthetic/orthotic based on patient diagnosis and goal (1a, 1b, 1c, 2a, 2b, 2c);
    b. creating a patient education program (1a, 1b, 1c, 2a, 2b, 2c);
    c. describing pre-prosthetic and prosthetic therapy interventions and data collection (1a, 1b, 1c, 2a, 2b, 2c);
    d. describing common prosthetic/orthotic components (1a, 1b, 1c, 2a, 2b, 2c);
    e. demonstrating post-amputation wrapping techniques in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c).
3. Explore the use of electrotherapy in physical therapy by
    a. discussing indications, contraindications, and precautions for selected electrotherapy devices (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. demonstrating selected electrotherapy devices in a laboratory setting (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. applying knowledge of patient disease/condition in the selection and setup of an electrotherapy device (1a, 1b, 1c, 2a, 2b, 2c, 2e).
4. Analyze pain management by
    a. explaining theories of pain management (1a, 1b, 1c, 2c, 2d, 2e);
    b. comparing pain and well behaviors (1a, 1b, 1c, 2c, 2d, 2e);
    c. discussing specific physical therapy interventions used for pain management (1a, 1b, 1c, 2c, 2d, 2e);
    d. demonstrating, in a laboratory setting, specific therapy techniques for pain management (1a, 1b, 1c, 2c, 2d, 2e).
5. Examine advanced wound management by
    a. discussing the physical therapy modalities used in wound management (1a, 1b);
    b. discussing various wound dressings and their effects on wound healing (1a, 1b);
    c. determining barriers to wound healing (1a, 1b).
6. Explore aging theories by
    a. describing physiological and psychological changes (1a, 1b);
    b. describing communication changes (1a, 1b);
    c. explaining how the delivery of physical therapy procedures is modified with the geriatric patient (1a, 1b).
7. Examine chest physical therapy by
    a. demonstrating specific interventions in a laboratory setting (1a, 1b, 1c, 2b, 2c);
    b. describing normal lung function and structure (1a, 1b, 1c, 2b, 2c);
    c. showing chest wall movement using a laboratory partner (1a, 1b, 1c, 2b, 2c);
    d. explaining physical therapy interventions used with various respiratory conditions (1a, 1b, 1c, 2b, 2c).

PTRT 1313 - Industrial Safety

General

Course Key
9955

Course Rubric	Course Number	Course Title
PTRT	1313	Industrial Safety

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) An overview for petroleum and manufacturing workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 C.F.R. 1910, 1926 standards such as confined space entry, emergency action, lock out/tag out, and other work related subjects.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the basic components of safety, health, and environmental systems as applied to oil and gas operations.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the history and importance of industrial and personal safety within the workplace by
    a. presenting an overview of safety and the health movement to the class (1a, 1b);
    b. listing possible accidents and their effects (1a, 1b);
    c. proposing theories of accident causation (1a, 1b).
2. Demonstrate an understanding of the standards, certifications, liabilities, and compensation provided to injured workers by
    a. identifying the above as they relate to safety, health, and competition in the global marketplace (2a, 2c);
    b. identifying the above as they relate to national and state OSHA standards and liability (2a, 2c);
    c. identifying the above as they relate to the necessity for workman's compensation (2a, 2c).
3. Demonstrate an understanding of proper safety procedures towards his/her own personal work habits by
    a. explaining proper use of accident investigation and reporting (1b, 1c);
    b. listing product safety features and the manufacturer's liability (1b, 1c);
    c. explaining the problem of stress and poor safety habits (1b, 1c);
    d. explaining the need for proper safety and health training (1b, 1c).
4. Demonstrate an understanding of hazard assessment, prevention, and control by
    a. listing negative results of falling, impact, acceleration, lifting, and vision hazards (1b, 2c);
    b. describing the hazards of temperature extremes (1b, 2c);
    c. assessing the pressure, electrical, and fire hazards that apply to the workplace (1b, 2c).
5. Demonstrate an understanding of industrial hygiene in confined spaces by
    a. listing different toxic substances used along with their effects on workers (2a, 2c);
    b. explaining the effects of airborne toxins and carcinogens (2a, 2c);
    c. practicing the use of respirators (2a, 2c);
    d. developing a confined space management policy (2a, 2c).
6. Demonstrate an understanding of proper procedures to deal with radiation, noise, and vibration hazards by
    a. explaining how to respond to radiation exposure and the limitations of exposure time (1b, 2d);
    b. listing the different sources of radiation exposure harmful to humans (1b, 2d);
    c. identifying the proper signs and labels to warn of radiation exposure (1b, 2d);
    d. identifying the work areas where noise could prove harmful to employees (1b, 2d);
    e. developing a process to identify and assess hazardous noise conditions (1b, 2d);
    f. evaluating the results of vibration hazards (1b, 2d).
7. Develop a plan to deal with emergencies and terrorism by
    a. explaining the need to plan to prevent accidents and emergencies (1b, 2c);
    b. producing a safety manual to handle emergencies (1b, 2c);
    c. promoting safe working habits throughout all lab experiences (1b, 2c);
    d. employing the Environmental Safety and ISO 14000 in procedures to handle safety issues (1b, 2c).

QCTC 1341 - Statistical Process Control

General

Course Key
16535

Course Rubric	Course Number	Course Title
QCTC	1341	Statistical Process Control

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Components of statistics including techniques of collection, presentation, analysis, and interpretation of numerical data as applied to statistical control. Stresses application of correlation methods, analysis of variance, dispersion, sampling, quality control, reliability, mathematical models, and programming.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Specific competencies are identified in designated course goals and learning outcomes. Describe the benefits and applications of statistical process control; use the seven tools of statistical process control; analyze data to calculate control limits; and identify out of control conditions.

Upon successful completion of this course, students will:

1. Demonstrate the use of seven tools of statistical process control by
    a. applying check sheet;
    b. applying histogram;
    c. applying pareto chart;
    d. applying cause-and-effect diagram;
    e. applying control chart;
    f. applying scatter diagram;
    g. applying stratification.
2. In Statistical Process Control (SPC), to calculate control limits by
    a. calculating the mean (average) of your sample data[
    b. estimating the standard deviation (sigma);
    c. adding and subtracting three times the standard deviation from the mean;
    d. determine the upper control limit (UCL) and lower control limit (LCL);
    e. constructing frequency and relative frequency distribution tables for a data set.
3. Statistical Process Control (SPC), an out of control condition, is identified by
    a. point falls outside the established control limits on a control chart;
    b. indicating a significant deviation from the expected process behavior;
    c. signifying a special cause variation requiring;
    d. representations of data.

RADR 1201 - Introduction to Radiography

General

Course Key
401

Course Rubric	Course Number	Course Title
RADR	1201	Introduction to Radiography

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). An overview of the historical development of radiography, basic radiation protection, an introduction to medical terminology, ethical and legal issues for health care professionals, and an orientation to the profession and the health care system.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Radiography from the American Registry of Radiologic Technologists, the Joint Review Committee on Education in Radiologic Technology (Professional Curriculum topics), and the current Radiography Curriculum Guide from the American Society of Radiologic Technology.

End-of-Course Outcomes: Define basic medical terms; identify ethical and legal standards; explain basic radiation protection practices; and relate the role of radiography to health care.

Upon successful completion of this course, students will:

1. Use knowledge of the historical development of radiography as a basis for the demonstration of professional behavior and involvement by
    a. selecting the appropriate professional attitude/behavior in a given situation (1a, 1b, 1c, 2b, 2d);
    b. identifying actions that indicate continuous professional involvement (1a, 1b, 1c, 2c, 2d).
2. Demonstrate understanding of the cardinal principles of basic radiation procedures by
    a. identifying appropriate use of distance for radiation protection (1a, 1c, 2a, 2b, 2d);
    b. identifying appropriate use of shielding for patient, others, and self (1a, 1c, 2a, 2b, 2d);
    c. identifying appropriate use of time for radiation protection (1b, 1c, 2a, 2b, 2d).
3. Use introductory radiographic medical terms appropriately by
    a. defining the terms used to describe and/or explain positioning, procedure, and projection (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. defining the terms related to radiographic technical factors (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. identifying diagnostic radiographic equipment when presented with the appropriate term (1a, 1b, 1c, 2a, 2b, 2c, 2d).
4. Describe introductory ethical and legal terms and associated concepts for health care professionals appropriately by
    a. defining assigned ethical and legal terms (1a, 1b, 2a, 2b, 2c, 2d);
    b. stating the four elements of negligence (1a, 1b, 2a, 2b, 2c, 2d).
5. Demonstrate understanding of the orientation to the program by
    a. paraphrasing the program student handbook (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. recalling information provided in the DFWHC Student Orientation packet (1a, 1b, 1c, 2a, 2b, 2c, 2d).
6. Generalize an orientation to the health care system by
    a. listing sources of health care delivery (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. listing methods of health care payments (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. outlining a sample hierarchy of a health care facility (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. outlining a medical imaging department hierarchy (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. describing the composition of a health care team (1a, 1b, 1c, 2a, 2b, 2c, 2d).

RADR 1203 - Patient Care

General

Course Key
8027

Course Rubric	Course Number	Course Title
RADR	1203	Patient Care

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). An introduction in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Radiography Content Specifications from the American Registry of Radiologic Technologists, the Curriculum Grid from the Joint Review Committee of Education in Radiologic Technology, the current Radiography Curriculum from the American Society of Radiologic Technology, and the Texas DSHS-MRT Division: Title 25 Texas Administrative Code, Chapter 140, Section 143.9.

End-of-Course Outcomes: Explain general safety in patient care practices; assess patient condition; describe infection control procedures; recognize and respond to emergency situations; identify relevant pharmaceuticals and their applications; and describe basic medical equipment operations.

Upon successful completion of this course, students will:

1. Demonstrate understanding of patient, other individuals of the health care team, communication, and interaction skills at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. explaining the need for efficient communication in order to deliver timely health care (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Demonstrate understanding of patient assessment at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. applying the presented problem solving steps to a given situation (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. measuring vital signs (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Demonstrate understanding of correct body mechanics to facilitate the moving and transferring of patients at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. identifying various body positions for safety, comfort, and/or examination procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d).
4. Demonstrate understanding of infection control procedures at the pre-clinical entry level by
    a. defining assigned terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. stating the links in the chain of infection (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. explaining how to disrupt the links of the chain of infection (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. differentiating between hand washing and surgical scrubbing (1a, 1b, 1c, 2a, 2b, 2c, 2d).
5. Demonstrate understanding of basic clinical safety procedures in a medical as well as nonmedical emergent situation at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. stating the student role in case of a nonmedical emergent situation as well as in a medical emergent situation (1a, 1b, 1c, 2a, 2b, 2c, 2d).
6. Demonstrate understanding of basic pharmacology within the radiology department at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. stating the current six rights of the administration of medication (1a, 1b, 1c, 2a, 2b, 2c, 2d).

RADR 1266 - Practicum Radiologic Technology

General

Course Key
8415

Course Rubric	Course Number	Course Title
RADR	1266	Practicum - Radiologic Technology/Science -Radiographer

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	16

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-16). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Function under direct and indirect supervision by
    a. performing all general patient care activities except venipuncture (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating competence in routine designated radiologic procedures of the thorax, abdomen, and selected upper and lower extremities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing requisition evaluation, patient assessment, and room preparation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

RADR 1267 - Practicum Radiologic Technology

General

Course Key
421

Course Rubric	Course Number	Course Title
RADR	1267	Practicum - Radiologic Technology/Science -Radiographer

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	16

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-16). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Function under direct and indirect supervision by
    a. performing all general patient care activities except venipuncture (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating competence in routine designated radiologic procedures of the thorax, abdomen, and selected upper and lower extremities (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing requisition evaluation, patient assessment, and room preparation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

RADR 1311 - Basic Radiographic Procedures

General

Course Key
429

Course Rubric	Course Number	Course Title
RADR	1311	Basic Radiographic Procedures

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). An introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Radiography from the American Registry of Radiologic Technologists www.arrt.org, Joint Review Committee on Education in Radiologic Technology (Professional Curriculum topics) www.jrcert.org, and the current Radiography Curriculum Guide and Practice Standards from the American Society of Radiologic Technology www.asrt.org.

End-of-Course Outcomes: Define radiographic positioning terms; manipulate equipment; perform basic level procedures in positioning; align anatomic structures and equipment; and evaluate images.

Upon successful completion of this course, students will:

1. Produce radiographic images and identify anatomy of selected areas of the upper extremity by
    a. producing images of the fingers and thumb (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the hand and wrist (1a, 1b, 1c, 2b, 2c, 2e);
    c. producing images of the forearm and elbow (1a, 1b, 1c, 2b, 2c, 2e).
2. Produce radiographic images and identify anatomy of selected areas of the lower extremity by
    a. producing images of the toes and foot (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the ankle and heel (1a, 1b, 1c, 2b, 2c, 2e);
    c. producing images of the tibia/fibula and knee (1a, 1b, 1c, 2b, 2c, 2e).
3. Simulate radiographic image production, identify anatomy of the chest, produce a radiographic image, and identify anatomy of the abdominal region by
    a. simulating producing images of the thorax (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing an image (KUB) of the abdomen (1a, 1b, 1c, 2b, 2c, 2e).

RADR 1313 - Principles of Radiographic Imaging I

General

Course Key
15582

Course Rubric	Course Number	Course Title
RADR	1313	Principles of Radiographic Imaging I

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Radiographic image quality and the effects of exposure variables. X-ray beam and image formation are emphasized.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Radiography from the American Registry of Radiologic Technologists, Joint Review Committee on Education in Radiologic Technology (Professional Curriculum topics), and the current Radiography Curriculum Guide from the American Society of Radiologic Technology.

End-of-Course Outcomes: Apply the basic principles of radiographic image acquisition to image quality; and analyze the effects of exposure variables upon image quality.

Upon successful completion of this course, students will:

1. Describe x-ray beam formation by
    a. describing basic operation of an x-ray machine (1a, 1b, 2c, 2e);
    b. describing x-ray production (1a, 1b, 2c, 2e).
2. Describe radiographic image formation by
    a. describing x-ray/patient interactions (1a, 1b, 2c, 2e);
    b. describing latent/visual image formation on film (1a, 1b, 2c, 2e);
    c. describing x-ray protection concepts/procedures (1a, 1b, 2c, 2e).
3. Describe radiographic image quality by
    a. describing primary exposure factors (1a, 1b, 2c, 2e);
    b. describing how exposure factors influence image quality (1a, 1b, 2c, 2e);
    c. describing how exposure factors are changed to alter image appearance (1a, 1b, 2c, 2e).

RADR 1366 - Practicum Radiologic Technology

General

Course Key
14399

Course Rubric	Course Number	Course Title
RADR	1366	Practicum - Radiologic Technology/Science -Radiographer

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	22

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-22). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists Radiography Content Specifications, the Joint Review Committee of Education in Radiologic Technology Curriculum Grid, the American Society of Radiologic Technology current Radiography Curriculum and Practice Standards, and the Texas DSHS-MRT division: Title 25 Texas Administrative Code Chapter 140, Section 143.9.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Upon successful completion of this course, students will:

1. Demonstrate the ability to recall and apply previously learned didactic, lab, and clinical experiences by
    a. accomplishing initial competency documentation under direct supervision (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. accomplishing interim proficiency documentation under indirect supervision (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. accomplishing task items as listed on the ARRT Task Inventory (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Function under direct supervision within the surgical suite by
    a. operating the C-Arm for surgical/sterile procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. maneuvering around the sterile field and any medical lines, tubes, etc., in the procedural area (1a, 1b, 1c, 2a, 2b, 2c, 2d).

RADR 2209 - Radiographic Imaging Equipment

General

Course Key
11143

Course Rubric	Course Number	Course Title
RADR	2209	Radiographic Imaging Equipment

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Equipment and physics of x-ray production. Includes basic x-ray circuits. Also examines the relationship of conventional and digital equipment components to the imaging process.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Differentiate between conventional and digital equipment; explain the physics of x-ray production; describe x-ray circuits; and relate conventional and digital equipment components to the imaging process.

Upon successful completion of this course, students will:

1. Demonstrate understanding of radiographic equipment for x-ray production by
    a. defining assigned terminology (1a, 1b, 2a, 2b, 2c, 2d);
    b. describing characteristics of matter and energy (1a, 1b, 2a, 2b, 2c, 2d);
    c. identifying sources of ionizing radiation (1a, 1b, 2a, 2b, 2c, 2d).
2. Demonstrate understanding of the physics of x-ray production at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 2a, 2b, 2c, 2d);
    b. describing the general design of the x-ray tube (1a, 1b, 2a, 2b, 2c, 2d);
    c. discussing the interactions between projectile electrons and the x-ray target (1a, 1b, 2a, 2b, 2c, 2d).
3. Demonstrate understanding of the basic x-ray circuits at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. identifying the relationships between electricity and magnetism (1a, 1b, 2a, 2b, 2c, 2d);
    c. explaining the concept of electromagnetic induction (1a, 1b, 2a, 2b, 2c, 2d).
4. Demonstrate understanding of quality assurance at the preclinical entry level by
    a. defining assigned terminology (1a, 1b, 2a, 2b, 2c, 2d);
    b. describing the quality control tests and schedule for radiographic systems (1a, 1b, 2a, 2b, 2c, 2d).

RADR 2213 - Radiation Biology and Protection

General

Course Key
451

Course Rubric	Course Number	Course Title
RADR	2213	Radiation Biology and Protection

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Effects of radiation exposure on biological systems. Includes typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Radiography Content Specifications from the American Registry of Radiologic Technologists, the Curriculum Grid from the Joint Review Committee of Education in Radiologic Technology, the current Radiography Curriculum from the American Society of Radiologic Technology, and the Texas DSHSMRT Division: Title 25 Texas Administrative Code, Chapter 140, Section 143.9.

End-of-Course Outcomes: Describe the biophysical mechanisms of radiation damage on humans; indicate typical dose ranges for routine radiographic procedures; describe basic methods and instruments for radiation monitoring, detection, and measurement; and implement radiation protection practices.

Upon successful completion of this course, students will:

1. Demonstrate understanding of radiation exposure on biological systems by
    a. differentiating between short term and long term effects of radiation exposure (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. differentiating between effects of limited and total body exposures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Use knowledge of typical medical exposure levels in discussions with colleagues and to educate patients as needed by
    a. demonstrating understanding of current radioactivity units of measurements in light of historical development of radioactivity units of measurements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying dose equivalent units/limits for occupation and nonoccupational radiation exposure (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. measuring vital signs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Select the appropriate method for measuring and monitoring radiation in a given situation by
    a. identifying the advantages and disadvantages of the various personnel monitoring dosimeters (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying the advantages and disadvantages of the various radiation survey instruments (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Apply various methods for protecting patients, personnel, and others from excessive exposure by
    a. justifying the need to minimize unproductive radiation exposure to humans (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. selecting appropriate method(s) to protect those involved in the procedure (and to use methods selected in clinic), in a given situation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. interpreting personnel monitoring reports (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

RADR 2233 - Advanced Medical Imaging

General

Course Key
11144

Course Rubric	Course Number	Course Title
RADR	2233	Advanced Medical Imaging

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). An exploration of specialized imaging modalities. Includes concepts and theories of equipment operations and their integration for medical diagnosis.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the various specialized imaging modalities; and differentiate between images produced by different modalities and identify the anatomy demonstrated.

1. Demonstrate an understanding of the fundamentals of digital radiography by
    a. identifying computer science fundamentals (1a, 1b, 2b, 2c, 2d);
    b. describing advantages of computed radiography over screen film radiography (1a, 1b, 2b, 2c, 2d);
    c. identifying components of five digital radiographic modes and systems (1a, 1b, 2b, 2c, 2d).
2. Demonstrate an understanding of the image characteristics of digital images by
    a. defining digital imaging terminology as identified by the ASRT (1a, 1b, 2b, 2c, 2d);
    b. defining spatial resolution and contrast resolution (1a, 1b, 2b, 2c, 2d);
    c. discussing characteristics of digital imaging as related to patient dose (1a, 1b, 2b, 2c, 2d).
3. Demonstrate an understanding of the fundamentals of computed tomography by
    a. defining terminology associated with computed tomography (1a, 1b, 1c, 2b, 2c, 2d);
    b. identifying computed tomography system components and functions (1a, 1b, 1c, 2b, 2c, 2d);
    c. identifying the advantages of multi-slice spiral computed tomography (1a, 1b, 1c, 2b, 2c, 2d).

RADR 2235 - Radiologic Technology Seminar

General

Course Key
464

Course Rubric	Course Number	Course Title
RADR	2235	Radiologic Technology Seminar

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). A capstone course focusing on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning. Intermediate level information on pharmacology/drug administration/venipuncture included.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Radiography Content Specifications from the American Registry of Radiologic Technologists, the Curriculum Grid from the Joint Review Committee of Education in Radiologic Technology, the current Radiography Curriculum from the American Society of Radiologic Technology, as well as the Texas DSHS - MRT Division: Title 25 Texas Administrative Code, Chapter 140, Section 143.9.

End-of-Course Outcomes: Demonstrate entry level proficiency in knowledge, skills, and attitudes necessary for professional employment; and articulate the need for lifelong learning.

1. Synthesize professional knowledge, skills, and attitudes in preparation for professional employment by
    a. recalling learned information from previous semesters in the radiological sciences (1a; 1b);
    b. composing a workable resume (1a, 1b, 1c, 2c, 2e);
    c. preparing to take the national registry (1a, 1b, 1c, 2c).
2. Synthesize professional knowledge, skills, and attitudes in preparation for lifelong learning by
    a. explaining what lifelong learning is (1a, 1b, 1c);
    b. examining choices for lifelong learning in the radiologic sciences (1a, 1b, 1c, 2c).
3. Compare/contrast between radiologic science ethics and laws by
    a. explaining the differences between ethics and laws as they pertain to radiologic technology (1a, 1b, 1c);
    b. defining legal terms as they apply to radiologic technology (1a, 1b, 1c);
    c. examining and analyzing case studies about legal ethics in radiologic technology (1a, 1b, 1c).
4. Compare/contrast pharmacology and drug administration by
    a. classifying drugs in an operable order (1a, 1b, 1c);
    b. recalling the drugs and their usage in radiologic procedures (1a, 1b, 1c);
    c. explaining the contraindications of drugs used in radiological procedures (1a, 1b, 1c).
5. Explain and demonstrate venipuncture by
    a. recalling the steps involved in preparing a site for intravenous injection (1a, 1b, 1c, 2b);
    b. demonstrating the steps (with a mannequin) involved in intravenous injection (1a, 1b, 1c, 2b);
    c. performing a live intravenous stick (1a, 1b, 1c, 2b).

RADR 2301 - Intermediate Radiographic Procedures

General

Course Key
465

Course Rubric	Course Number	Course Title
RADR	2301	Intermediate Radiographic Procedures

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). A continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomic structure and equipment, and evaluation of images for proper demonstration of anatomy.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by current Content Specifications for the Examination in Radiography from the current American Registry of Radiologic Technologists, the Joint Review Committee on Education in Radiologic Technology (Professional Curriculum topics), and the current Radiography Curriculum Guide from the American Society of Radiologic Technology.

End-of-Course Outcomes: Manipulate equipment; perform intermediate level procedures in positioning; align anatomic structures and equipment; and evaluate images.

1. Produce radiographic images of selected areas of the upper extremity by
    a. producing images of the humerus (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the shoulder (1a, 1b, 1c, 2b, 2c, 2e);
    c. producing images of the shoulder girdle (1a, 1b, 1c, 2b, 2c, 2e).
2. Produce radiographic images of selected areas of the lower extremity by
    a. producing images of the femur (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the hip (1a, 1b, 1c, 2b, 2c, 2e);
    c. producing images of the pelvic girdle (1a, 1b, 1c, 2b, 2c, 2e).
3. Produce radiographic images of the thoracic and abdominal regions by
    a. producing images of the thorax (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the abdomen (1a, 1b, 1c, 2b, 2c, 2e).
4. Produce radiographic images of the spine by
    a. producing images of the cervical spine (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the thoracic spine (1a, 1b, 1c, 2b, 2c, 2e);
    c. producing images of the lumbar spine (1a, 1b, 1c, 2b, 2c, 2e);
    d. producing images of the sacrum/coccyx (1a, 1b, 1c, 2b, 2c, 2e).

RADR 2305 - Principles of Radiographic Imaging II

General

Course Key
468

Course Rubric	Course Number	Course Title
RADR	2305	Principles of Radiographic Imaging II

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Continuation of radiographic image quality and the effects of exposure variables, and the synthesis of all variables in image production. Includes equipment quality control and image quality assurance.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Radiography from the American Registry of Radiologic Technologists, Joint Review Committee on Education in Radiologic Technology (Professional Curriculum topics), and the current Radiography Curriculum Guide from the American Society of Radiologic Technology.

End-of-Course Outcomes: Analyze image quality; utilize procedures for minimizing patient exposure; and adapt technical variables to changing conditions.

1. Describe radiographic imaging technique formulation by
    a. describing the control of image density/brightness (1a, 1b, 2c, 2e);
    b. describing the control of image contrast/dynamic range (1a, 1b, 2c, 2e);
    c. describing the control of image detail/spatial resolution (1a, 1b, 2c, 2e);
    d. describing the control of image distortion (1a, 1b, 2c, 2e).
2. Describe radiographic image quality assurance by
    a. describing how to correct for over/under exposure (1a, 1b, 2c, 2e);
    b. describing how to change scale of contrast/dynamic range (1a, 1b, 2c, 2e);
    c. describing how to improve image detail/spatial resolution (1a, 1b, 2c, 2e);
    d. describing how to reduce image distortion (1a, 1b, 2c, 2e).
3. Describe radiographic equipment quality control by
    a. describing basic quality assurance/control (1a, 1b, 2c, 2e);
    b. identifying acceptable limits of various quality control procedures (1a, 1b, 2c, 2e);
    c. describing how exposure factors are changed to alter image appearance (1a, 1b, 2c, 2e).

RADR 2331 - Advanced Radiographic Procedures

General

Course Key
472

Course Rubric
RADR

Course Number
2331

Course Title
Advanced Radiographic Procedures

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). Continuation of positioning and alignment of the anatomic structures and equipment, evaluation of images for proper demonstration of anatomy and related pathology.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Radiography from the American Registry of Radiologic Technologists, the Joint Review Committee on Education in Radiologic Technology (Professional Curriculum topics), and the current Radiography Curriculum Guide and Practice Standards from the American Society of Radiologic Technology.

End-of-Course Outcomes: Perform advanced level procedures in positioning; align anatomic structures and equipment; and evaluate images.

1. Produce selected radiographic images of the extremities by
    a. producing images of the upper extremity (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the lower extremity (1a, 1b, 1c, 2b, 2c, 2e).
2. Produce radiographic images of the head by
    a. producing images of the skull (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the sinuses/facial bones (1a, 1b, 1c, 2b, 2c, 2e).
3. Describe digestive system radiography by
    a. identifying patient position/projection/view, anatomy, and pathology on UGI images (1a, 1b, 1c, 2b, 2c, 2e);
    b. identifying patient position/projection/view, anatomy, and pathology on LGI images (1a, 1b, 1c, 2b, 2c, 2e);
    c. performing enema tip insertion on a mannequin (1a, 1b, 1c, 2b, 2c, 2e).
4. Describe radiography of various body systems by
    a. recalling radiographic information of the urinary system (1a, 1b, 1c, 2b, 2c, 2e);
    b. recalling radiographic information of the reproductive system (1a, 1b, 1c, 2b, 2c, 2e);
    c. recalling radiographic information of the central nervous system (1a, 1b, 1c, 2b, 2c, 2e).
5. Describe radiography of various patient types by
    a. recalling pediatric patient information (1a, 1b, 1c, 2b, 2c, 2e);
    b. recalling geriatric patient information (1a, 1b, 1c, 2b, 2c, 2e).
6. Describe radiography in various settings by
    a. recalling trauma radiography information (1a, 1b, 1c, 2b, 2c, 2e);
    b. recalling mobile radiography information and performing mobile radiography in a simulated trauma scenario (1a, 1b, 1c, 2b, 2c, 2e);
    c. recalling surgical radiography information and maneuvering a C-Arm fluoroscopic unit in a simulated surgical scenario (1a, 1b, 1c, 2b, 2c, 2e).

RADR 2340 - Sectional Anatomy for Medical Imaging

General

Course Key
11974

Course Rubric
RADR

Course Number
2340

Course Title
Sectional Anatomy for Medical Imaging

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Anatomic relationships present under various sectional orientations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Examination in Computed Tomography from the American Registry of Radiologic Technologists, The Joint Review Committee on Education in Computed Tomography (Professional Curriculum topics), and the current Radiology Curriculum Guide and Practice Standards from American Society of Radiologic Technology.

End-of-Course Outcomes: Differentiate the various planar orientations used in medical imaging; and identify sectional anatomic structures viewed on medical images.

1. Produce radiographic (CT) images of the brain by
    a. producing images of cranium, facial, and sinus bones (1a, 1b, 1c, 2b, 2c, 2e, 5a, 5b, 5c);
    b. producing images of the brain and arteries (1a, 1b, 1c, 2b, 2c, 2e).
2. Produce radiographic (CT) images of the neck and spine by
    a. producing images of the C-spine (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the T-spine (1a, 1b, 1c, 2b, 2c, 2e);
    c. producing images of the L-spine (1a, 1b, 1c, 2b, 2c, 2e);
    d. identifying the differences of each level (1a, 1b, 1c, 2b, 2c, 2e);
    e. producing images of soft tissue of the neck (1a, 1b, 1c, 2b, 2c, 2a).
3. Produce radiographic (CT) images of the thorax by
    a. identifying the heart (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the lungs (1a, 1b, 1c, 2b, 2c, 2e);
    c. producing images of the heart (1a, 1b, 1c, 2b, 2c, 2e);
    d. producing images of the aorta and carotids (1a, 1b, 1c, 2b, 2c, 2e).
4. Produce radiographic (CT) images of the abdomen and identify which contrast is needed per exam by
    a. scanning the liver in a tri-phase scan (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing delay imaging (1a, 1b, 1c, 2b, 2c, 2e).
5. Produce images of the pelvis by
    a. producing images of a bony pelvis (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of a soft-tissue pelvis (1a, 1b, 1c, 2b, 2c, 2e).
6. Produce radiographic (CT) images of the extremities by
    a. producing images of the upper extremity (1a, 1b, 1c, 2b, 2c, 2e);
    b. producing images of the lower extremity (1a, 1b, 1c, 2b, 2c, 2e).

RADR 2366 - Practicum-Radiologic Tech/Sci Radiograp

General

Course Key
8417

Course Rubric	Course Number	Course Title
RADR	2366	Practicum - Radiologic Technology/Science Radiographer

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists Radiography Content Specifications, the Joint Review Committee of Education in Radiologic Technology Curriculum Grid, the American Society of Radiologic Technology current Radiography Curriculum and Practice Standards, and the Texas DSHS-MRT division: Title 25 Texas Administrative Code Chapter 140, Section 143.9.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

1. Transfer previously learned experiences from one clinical location to a new clinical setting by
    a. completing competencies/interims (1a, 1b, 1c, 2b, 2c, 2d);
    b. performing basic patient care and protection (1a, 1b, 1c, 2b).
2. Function under direct and indirect supervision at an apprentice III level capacity by
    a. taking a more active role in the assessment of patients and procedural protocols (1a, 1b, 1c, 2a, 2c, 2d);
    b. performing procedures using contrast media (1a, 1b, 1c, 2c, 2d, 2e).

RADR 2367 - Practicum - Radiologic Technology

General

Course Key
8418

Course Rubric	Course Number	Course Title
RADR	2367	Practicum - Radiologic Technology/Science Radiographer

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current American Registry of Radiologic Technologists Radiography Content Specifications, the Joint Review Committee of Education in Radiologic Technology Curriculum Grid, the American Society of Radiologic Technology current Radiography Curriculum and Practice Standards, and the Texas DSHS-MRT division: Title 25 Texas Administrative Code Chapter 140, Section 143.9.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

1. Demonstrate the ability to recall and apply previously learned experiences by
    a. completing any remaining category competencies (1a, 1b, 2b, 2c, 2d);
    b. performing basic patient care and protection (1a, 1b, 1c, 2b);
    c. performing final competency category testing (minimum of six) (1a, 1b, 1c, 2b, 2d, 2e).
2. Function at job entry level under indirect supervision by
    a. recalling routine procedures (1a, 1b, 1c, 2a, 2b, 2c);
    b. assessing patients for cooperation level (1a, 1b, 1c, 2a, 2b, 2c);
    c. operating an R/F room with minimum assistance (1a, 1b, 1c, 2b, 2c, 2d, 2e).

RBTC 1351 - Robotic Mechanisms

General

Course Key
491

Course Rubric	Course Number	Course Title
RBTC	1351	Robotic Mechanisms

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). The application of principles and the calculation of practical problems involving four bar linkages, cams, gears, and gear trains. Topics include vector quantities, angular displacement, motion concepts, velocities, and motions. Recommended Prerequisite: MATH 1332.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Calculate stroke, path, and angular movement of various mechanisms; define and use scalar and vector quantities; solve simple problems involving relative motion, plane motion, plane rotation, angular displacement, and linear displacement; solve simple problems involving angular and linear velocity, instant center of rotation, relative velocity, and rolling and sliding velocity; and explain the various types of gears, gear trains, cams, ball bearings, lead screws, and their applications.

1. Demonstrate knowledge of the use of hand tools by
    a. identifying the various types of screwdrivers and explaining how they are used;
    b. identifying the various types of pliers and explaining how they are used;
    c. identifying the various types of wrenches and explaining how they are used;
    d. identifying the various socket tools and explaining how they are used;
    e. understanding how to use a torque wrench;
    f. identifying the various types of hammers and explaining how they are used;
    g. identifying the various types of punches and explaining how they are used;
    h. understanding how to use hacksaws;
    i. identifying the various types of files and explaining how they are used;
    j. understanding how to use different types of industrial measuring tools.
2. Understand how fasteners are used in mechanical systems by
    a. understanding the nomenclature associated with various screw thread designs;
    b. explaining the classes of bolt fit and bolt grades;
    c. identifying common industrial threaded fasteners;
    d. explaining how to remove damaged fasteners;
    e. cutting threads using taps and dies.
3. Apply the basic principles of mechanical systems to mechanical system designs by
    a. calculating forces using vectors;
    b. calculating torque;
    c. understanding and applying the concept of mechanical work;
    d. performing lever arm calculations;
    e. performing wheel and axle calculations;
    f. performing pulley calculations;
    g. performing inclined plane calculations;
    h. understanding the use of screws and wedges;
    i. performing mechanical efficiency calculations;
    j. performing mechanical rate calculations;
    k. calculating rotational speed;
    l. understanding and calculating mechanical resistance involving frictional forces;
    m. calculating mechanical power.
4. Understand how lubrication is used to protect mechanical systems by
    a. defining lubrication principles such as viscosity and additives;
    b. explaining the different types of industrial oils;
    c. understanding oil viscosity classifications;
    d. identifying the different types of greases and how they are used.
5. Explain how bearings are used in mechanical systems by
    a. understanding plain bearings and their lubrication;
    b. identifying rolling element bearings;
    c. explaining the use of ball bearings;

d. explaining the use of roller bearings;
e. explaining the use of needle bearings;
f. understanding how bearings are mounted;
g. knowing how to troubleshoot bearing problems.

6. Apply seals, gaskets, and packing to mechanical system applications by
   a. understanding the use of gaskets and elastomeric static seals;
   b. explaining the use of stuffing boxes;
   c. differentiating between automatic and molded packing;
   d. understanding and installing radial lip seals;
   e. understanding and installing mechanical seals;
   f. using labyrinth seals.

7. Understand the use of belt drives in mechanical systems by
   a. explaining standard and classical V-belt nomenclature;
   b. replacing V-belts;
   c. replacing sheaves;
   d. performing belt drive alignments;
   e. understanding V-belt installation and tensioning;
   f. performing V-belt maintenance;
   g. understanding timing belt installation and tensioning.

8. Understand the use of chain drives in mechanical systems by
   a. identifying the different types of roller chains;
   b. explaining the use of roller chain attachments;
   c. understanding inverted tooth (silent chain) drives;
   d. understanding chain sprocket hub design and mounting;
   e. calculating the proper chain design for a mechanical system;
   f. installing a chain drive;
   g. understanding how chain drives are lubricated;
   h. performing chain drive maintenance.

9. Understand the use of gears in mechanical systems by
   a. explaining gear terms and fundamentals;
   b. calculating gear dimensions;
   c. identifying the different types of gears;
   d. understanding how gears are lubricated;
   e. troubleshooting open gear problems;
   f. explaining enclosed gear drive terminology;
   g. identifying common enclosed gear drives and gearbox configurations;
   h. installing gearboxes;
   i. maintaining, rebuilding, or overhauling gearboxes.

10. Understand the use of couplings in mechanical systems by
    a. identifying the different types of rigid couplings;
    b. explaining the use of flexible couplings;
    c. identifying the different types of chain couplings;
    d. identifying the different types of gear couplings;
    e. understanding how elastomeric flexible couplings are applied to mechanical systems;
    f. installing couplings;
    g. using shims;
    h. explaining how to align couplings to compensate for run out and soft foot;
    i. understanding the different types of coupling misalignment and how to correct them.

11. Apply clutches and brakes to mechanical systems by
    a. understanding positive contact clutches;
    b. explaining the use of friction clutches;
    c. explaining the use of fluid clutches;
    d. understanding magnetic clutches and brakes;
    e. applying overrunning clutches to mechanical systems;
    f. identifying the different types of overrunning clutch configurations;
    g. maintaining and troubleshooting clutches and brakes.

12. Use rigging to solve mechanical system lifting and moving problems by
    a. estimating the weight of a mechanical system;
    b. calculating the center of gravity of a mechanical system;
    c. determining the optimal placement of rigging when lifting and moving mechanical systems;
    d. understanding the various types of fiber ropes and how they are used;
    e. tying different types of knots;
    f. explaining the different wire rope configurations;
    g. identifying the different chain link sizes;
    h. calculating sling forces for vertical and angled slings.

RBTC 1401 - Programmable Logic Controllers

General

Course Key
494

Course Rubric	Course Number	Course Title
RBTC	1401	Programmable Logic Controllers

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). A study in programmable logic controllers (PLC). Topics include processor units, numbering systems, memory organization, relay type devices, timers, counters, data manipulators, and programming.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): MATH 1332

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Write a working PLC program using ladder logic; install and troubleshoot the program; and integrate PLCs into electro-mechanical systems.

1. Demonstrate an understanding of proper safety practices while working with significant voltages, tools, and equipment by
    a. working with 120v AC without causing injury to self or someone else;
    b. working properly with hand tools to install a new programmable controller;
    c. wiring the supply voltages for both the inputs and outputs used on a programmable controller properly.
2. Demonstrate an understanding of the functions and advantages of the main components of a programmable logic controller by
    a. listing the five main components, along with their functions, of each component;
    b. explaining the advantages of each of the different components in a PLC.
3. Demonstrate the ability to program the programmable controller and demonstrate this knowledge using ladder logic programming techniques by
    a. programming a PLC to operate the output devices in response to a controlled input;
    b. programming a PLC to use timing functions to control a manufacturing process;
    c. programming a PLC to use counters to control a simulation process;
    d. programming a PLC to use sequencers to control a predicted sequence of output functions.
4. Demonstrate an understanding of different number systems and the ability to apply that knowledge to different models of programmable controllers by
    a. converting from decimal number system to other number systems such as octal, hexadecimal, and binary;
    b. programming counters and timers with hexadecimal values;
    c. applying binary numbered inputs and outputs to various interface modules.
5. Apply the process of converting from relay logic symbols to ladder logic programming by
    a. identifying the relay logic symbols as electrical components;
    b. converting relay logic symbols to ladder logic programming;
    c. connecting input and output devices to the PLC that are representative of the relay logic symbols.
6. Demonstrate an understanding of the process of setting up a communication link between the programming computer and the PLC by
    a. setting up the communication link using RS-Linx or similar software;
    b. diagnosing a communication problem and reestablishing communication once it has been lost;
    c. choosing the proper port configurations when multiple PLC models are being programmed from the same computer.
7. Create ladder logic programs to solve multiple programming scenarios by
    a. programming the basic input and output ladder logic instructions;
    b. programming the use of timer, counter, and sequencer instructions;
    c. demonstrating the ability to program the math and compare instructions;
    d. programming the basic data manipulation and Boolean instructions.
8. Demonstrate an understanding of the different troubleshooting fundamentals by
    a. utilizing the proper methods of testing the operation of inputs and outputs;
    b. employing software analysis techniques needed to correct a PLC malfunction;
    c. utilizing the proper process for final system checkout.

RBTC 1447 - Electro-Mechanical Devices

General

Course Key
498

Course Rubric	Course Number	Course Title
RBTC	1447	Electro-Mechanical Devices

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). A study of electro-mechanical devices found in robotic systems. Includes transformers, switches, and solid state relays. Recommended Prerequisite: CETT-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Install electro-mechanical devices; describe relay logic; and troubleshoot related electrical components found in automated systems.

1. Apply operational amplifiers to industrial process and control applications by
    a. describing the operation of an instrumentation amplifier;
    b. calculating the output voltage and gain of an instrumentation amplifier for a given input voltage;
    c. calculating the output voltage of a logarithmic amplifier;
    d. explaining the operation and calculating the output frequency of a Weinbridge oscillator;
    e. calculating the output voltages and gains of the inverting and non-inverting current differencing amplifier (CDA);
    f. calculating the trigger voltages and currents of the inverting and noninverting CDA comparators with and without hysteresis;
    g. explaining the operation and applications of the CDA window comparator;
    h. describing the operation of the operational trans-conductance amplifier (OTA) and identifying its schematic symbol;
    i. describing applications for the op amp current to voltage converter;
    j. defining the general procedures for troubleshooting op amps.
2. Apply integrated circuits to industrial applications by
    a. describing the function of a voltage to frequency converter (VFC) and calculating the output frequency for a given input voltage;
    b. calculating the capture and lock ranges of a phase locked loop (PLL);
    c. describing the function of a frequency to voltage converter (FVC) and calculating the output voltage for a given input frequency;
    d. explaining the analog to digital (A/D) and digital to analog (D/A) conversion process and describing the operation of A/D converters (ADCs) and D/A converters (DACs);
    e. describing the operation of an analog switch;
    f. defining current sourcing and sinking.
3. Demonstrate an understanding of the operation of wound field DC motors and generators by
    a. describing the operation of ideal, series, shunt, separately excited, and compound DC motors and generators;
    b. identifying the schematic diagrams of the series, shunt, separately excited, and compound DC motors and generators;
    c. determining the performance of DC motors and generators;
    d. giving examples of the use of each of the configurations of series, shunt, separately excited, and compound DC motors and generators.
4. Demonstrate an understanding of the operation of brushless and stepper DC motors by
    a. contrasting the permanent magnet (PM) DC motor with the wound field motor;
    b. describing the characteristics of the three types of magnets used in PM motors;
    c. calculating the factor of merit for a PM motor;
    d. identifying the parts and describing the operation of a brushless DC motor (BDCM);
    e. identifying the parts and describing the operation of the variable reluctance (VR) and PM stepper motors;
    f. describing the operation of an optical encoder;
    g. contrasting the incremental encoder with the absolute encoder.
5. Demonstrate an understanding of the operation of AC motors by
    a. identifying the schematic symbols for the wye and delta connections, and calculating the phase and line voltages and currents;
    b. defining power factor and explaining its relationship to AC motors;
    c. explaining the concepts and units of true, reactive, and apparent (total) power;
    d. classifying AC motors by horsepower and internal construction;
    e. explaining the concept of a rotating field motor and calculating its speed;
    f. explaining how torque is produced in an induction motor;

g. calculating the slip of an induction motor;

h. describing the different methods of starting single phase motors;

i. identifying the special starting methods for synchronous motors.

6. Apply control devices to specific applications of industrial control processes by

a. categorizing control devices into one of five areas;

b. explaining the operation of electromechanical, reed, and solid state relays and describing their advantages and disadvantages in various applications;

c. calculating the firing angle, junction temperature, and power dissipation of an AC thyristor circuit;

d. giving examples of applications of manually and mechanically operated switches;

e. listing four methods by which thyristors are triggered;

f. describing the operation and applications of a solenoid;

g. explaining the operation of motor protection circuits;

h. contrasting the operation and applications of thermal and magnetic overload relays;

i. contrasting the operation and applications of the electromagnetic and solid state relay.

7. Apply power control circuits to industrial process applications by

a. describing the concept of hysteresis and explain how it produces the snap on effect in phase control circuits;

b. describing the operation of the ramp and pedestal circuit, zero voltage switching, and chopper motor control;

c. describing open and closed loop motor control;

d. explaining motor speed control using pulse width modulation;

e. explaining the methods used to control the speed of an AC motor;

f. describing how different power levels are applied to a load using phase control circuitry;

g. describing the operation of a converter;

h. explaining the use of a phase locked loop (PLL) in controlling the speed of a DC motor;

i. explaining the use of transistors and power MOSFETs as power control devices.

8. Apply transducers to industrial process applications by

a. explaining the operation of a transducer in terms of input, conversion, and output;

b. explaining the transduction principle;

c. classifying transducers into one of seven basic areas;

d. calculating an unknown resistance using a bridge circuit;

e. calculating the sensitivity of a bridge circuit.

9. Demonstrate an understanding of the operation of optoelectronic devices by

a. describing the nature of light;

b. defining the terms photometry and radiometry;

c. explaining spontaneous and stimulated emission;

d. calculating the wavelength of a photon;

e. calculating the series resistance of an LED;

f. calculating the frequency difference between longitudinal modes, coherence length and number of wavelengths, divergence, focus beam spot radius, peak, and average power in a laser pulse train;

g. listing the four different types of lasers;

h. classifying lasers as either continuous wave (CW) or pulsed;

i. identifying the schematic symbols for optoelectronic components.

10. Apply the principles of process control to industrial process applications by

a. defining process control;

b. explaining the elements of a process control system;

c. defining process load, lag, and stability and describing how they relate to a process control system;

d. distinguishing between feedback and feed forward control systems;

e. describing the on/off, proportional, integral, and derivative (PID) control modes;

f. contrasting electric and pneumatic controllers;

g. distinguishing between the use of servos and other types of automatic controllers;

h. describing the operation of a synchro.

11. Demonstrate an understanding of the principles of pulse modulation as applied to industrial process applications by

a. defining pulse modulation;

b. determining the minimum sample rate for pulse modulation;

c. explaining the four types of analog modulation and demodulation;

d. listing the advantages and disadvantages of the pulse modulation types;

e. generating pulse code modulation (PCM);

f. demodulating pulse code modulation (PCM);

g. determining quantizing noise values for PCM;

h. explaining the use of a 555 timer to control the pulse width in pulse modulation circuits.

12. Demonstrate an understanding of the way telemetry and data communication are used in industrial process applications by

a. describing frequency division and time division multiplexing;

b. explaining the concepts of data bandwidth, frequency deviation, and modulation index;

c. listing the sources of errors in multiplexed transmission;

d. listing the methods used for data communication and recording on magnetic media;

e. identifying the most important circuits in the RS-232C serial interface standard;

f. calculating frame time, frame rate, sample time, and commutation rate for pulse modulation systems.

13. Apply sequential process control to industrial control applications by

a. defining sequential control;

b. distinguishing a batch process from a continuous process;

c. identifying batch process applications;

d. explaining ladder logic diagrams;

e. generating a ladder logic diagram from a pictorial diagram and sequential process description;

f. explaining the relay logic symbols for the digital functions AND, OR, NAND, NOR and NOT;

g. converting relay logic ladder diagrams to equivalent semiconductor logic diagrams and vice versa.

14. Apply programmable logic controllers (PLCs) to industrial process control by

a. stating the historical definition for the PLC;

b. explaining the parts and functional operation of PLCs;

c. determining the important factors to consider when selecting a PLC for a specific application;

d. identifying the symbols used in a PLC logic ladder diagram;

e. creating PLC logic ladder diagrams for specific control applications.

15. Apply robotics principles to industrial applications by

a. defining an industrial robot;

b. listing four requirements for an industrial robot;

c. explaining the function of the three basic parts of a robot;

d. explaining the concept of degrees of freedom;

e. contrasting the four different robot work envelopes;

f. differentiating between a servo and non-servo controlled robot.

RBTC 2445 - Robot Application, Set-up and Testing

General

Course Key
16505

Course Rubric	Course Number	Course Title
RBTC	2445	Robot Application, Set-Up and Testing

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). A capstone course that provides the student with laboratory experience in the installation, set-up, and testing of robotic cells. Topics include maintenance. Required Prerequisite(s): CETT-1409 or CETT-1403 and CETT-1405 Recommended Prerequisite(s): CETT-1449 and RBTC-1351

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): CETT-1409 or CETT-1403 and CETT-1405

Recommended Prerequisite(s): CETT-1449 and RBTC-1351

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Design and implement a robotic cell; troubleshoot and maintain the robotic cell to make it function in an automated environment; and apply design techniques to maintain set cycle times on an automated system.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a knowledge of the development and advancement of industrial and personal robots by
   a. listing the different types of robots (1a, 1b, 2a, 2c, 2d, 2e);
   b. explaining the different jobs that are performed by robots (1a, 1b, 2a, 2c, 2d, 2e);
   c. predicting how robots will be used in the future (1a, 1b, 2a, 2c, 2d, 2e).
2. Show comprehension of robot classification by
   a. classifying robots based upon arm geometry, power sources, applications, control techniques, and path control (1a, 1b, 2a, 2c, 2d, 2e);
   b. describing the motion of the Cartesian, cylindrical, spherical, and articulated robot arm configurations (1a, 1b, 2a, 2c, 2d, 2e);
   c. explaining the operation of the hydraulic, pneumatic, and electromotive force sources used in robotic systems (1a, 1b, 2a, 2c, 2d, 2e).
3. Analyze the effectiveness of automated work cells and CIM Systems by
   a. describing the 3 steps used to implement CIM (1a, 1b, 2a, 2c, 2d, 2e);
   b. evaluating the 6 manufacturing performance measures (1a, 1b, 2a, 2c, 2d, 2e); c. explaining the difference between flexible manufacturing cells and systems (1a, 1b, 2a, 2c, 2d, 2e).
4. Demonstrate a full understanding of End of Arm tooling by
   a. naming the 5 characteristics of good tooling design (1a, 1b, 2a, 2c, 2d, 2e);
   b. classifying all tooling into the proper gripper categories (1a, 1b, 2a, 2c, 2d, 2e);
   c. designing a vacuum gripper system using standard components (1a, 1b, 2a, 2c, 2d, 2e);
   d. describing the difference between multiple end effector systems and multiple gripper systems (1a, 1b, 2a, 2c, 2d, 2e).
5. Demonstrate a working knowledge of mechanical and electrical sensors as they apply to robots by
   a. designing and demonstrating sensors used as input devices on a robotic arm (1a, 1b, 2a, 2c, 2d, 2e);
   b. integrating mechanical sensors in design of a robotic arm (1a, 1b, 2a, 2c, 2d, 2e);
   c. contrasting the effectiveness of the mechanical and electrical sensors (1a, 1b, 2a, 2c, 2d, 2e).
6. Demonstrate an understanding of work cell support systems by
   a. describing the 5 tasks that vision systems perform in automated manufacturing (1a, 1b, 2a, 2c, 2d, 2e);
   b. explaining the components used in vision systems and image recognition (1a, 1b, 2a, 2c, 2d, 2e);
   c. describing the function and operation of an ASRS (1a, 1b, 2a, 2c, 2d, 2e);
   d. contrasting the 2 most popular bar code technologies (1a, 1b, 2a, 2c, 2d, 2e).
7. Demonstrate an ability to integrate robots into the manufacturing environment by
   a. describing the architecture and providing a system overview for the hardware and software found in a typical CIM system (1a, 1b, 2a, 2c, 2d, 2e);
   b. discussing the component integration issues with current PLCs used to control a multi-axis pneumatic robot (1a, 1b, 2a, 2c, 2d, 2e);
   c. implementing sensors into a CIM environment (1a, 1b, 2a, 2c, 2d, 2e);
   d. describing the function and operation of the enterprise data interface (1a, 1b, 2a, 2c, 2d, 2e).
8. Demonstrate a working knowledge of work cell programming by
   a. describing the 3 categories of work cell control software (1a, 1b, 2a, 2c, 2d, 2e);
   b. explaining the robot program language development and the classification process (1a, 1b, 2a, 2c, 2d, 2e);
   c. describing how PLCs are used to program non-servo robots (1a, 1b, 2a, 2c, 2d, 2e).
9. Develop a means of justification and applications of work cells by
   a. explaining how automation projects are justified using financial planning concepts (1a, 1b, 2a, 2c, 2d, 2e);
   b. performing the financial analysis for an automation project (1a, 1b, 2a, 2c, 2d, 2e);
   c. describing the typical robot automation application in areas such as welding, material handling, machine tending, paint spraying, assembly, and the process area (1a, 1b, 2a, 2c, 2d, 2e).
10. Demonstrate an understanding of proper safety procedures used within an automated work cell by
    a. identifying the organizations that set safety standards (1a, 1b, 2a, 2c, 2d, 2e);
    b. describing the procedures used to safeguard an automated work cell (1a, 1b, 2a, 2c, 2d, 2e);
    c. developing a safety cost justification (1a, 1b, 2a, 2c, 2d, 2e);
    d. listing the OSHA/ANSI guidelines for hazard control (1a, 1b, 2a, 2c, 2d, 2e).

RELE 1300 - Contract Forms and Addenda

General

Course Key
9464

Course Rubric	Course Number	Course Title
RELE	1300	Contract Forms and Addenda

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Promulgated Contract Forms, shall include but is not limited to unauthorized practice of law, broker-lawyer committee, current promulgated and approved forms, commission rules governing use forms and case studies involving use of forms.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s) or Corequisite(s): RELE 1002

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the Broker-Lawyer Committee, including composition and purpose; demonstrate that a given action or statement constitutes the unauthorized practice of law and state the penalties for same; compare and contrast promulgated and approved forms; assess if the use of a form is within the Texas Real Estate Commission rules for use of forms; and utilize correct forms for a given scenario.

1. Demonstrate an understanding of the Texas Real Estate Commission contract forms and addenda by
   a. demonstrating the ability to use the proper form and addenda for a given case study;
   b. comparing and contrasting promulgated forms;
   c. understanding the rationale for each paragraph in the promulgated forms and addenda;
   d. identifying the current promulgated forms.
2. Demonstrate an understanding of the unauthorized practice of law by
   a. describing the rules relating to promulgated form usage;
   b. demonstrating an ability to prepare a contract without practicing law.
3. Demonstrate an understanding of the role of the Broker-Lawyer Committee by
   a. describing the Broker-Lawyer Committee, including role, duties, composition and purpose;
   b. understanding the commission rules regarding use of forms;
   c. describing the rationale for the Committee.

RELE 1303 - Real Estate Appraisal

General

Course Key
547

Course Rubric	Course Number	Course Title
RELE	1303	Real Estate Appraisal

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). The central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the functions of an appraisal; identify the three approaches to valuation estimates; describe both social and economic determinants of value; and complete a report that illustrates final correlations.

1. Demonstrate an understanding of the central purpose and function of appraisal by
    a. describing the concept of value;
    b. outlining the social and economic determinants of value;
    c. identifying external forces that influence value.
2. Demonstrate an understanding of the approaches to value estimation by
    a. determining value through the income approach;
    b. determining value through the cost approach;
    c. determining value through the market data approach;
    d. determining value through the sales comparison approach.
3. Demonstrate an understanding of the reporting of value by
    a. preparing appraisal case studies;
    b. producing final correlations;
    c. describing different types of appraisal reports;
    d. explaining professional standards and responsibilities.

RELE 1307 - Real Estate Investments

General

Course Key
554

Course Rubric	Course Number	Course Title
RELE	1307	Real Estate Investments

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Characteristics of real estate investments. Includes techniques of investment analysis, time-valued money, discounted and non-discounted investment criteria, leverage, tax shelters, depreciation, and applications to property tax.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze real estate investments using cash flow analysis; estimate future value using proforma; determine the advantages and disadvantages of investments; explore the effects of tax shelters, depreciation and property tax.

1. Demonstrate an understanding of the fundamentals of investing in real estate by
    a. using techniques of investment analysis;
    b. outlining the characteristics of real estate investments;
    c. explaining tax shelter depreciation;
    d. computing property tax.
2. Demonstrate an understanding of the financial analysis of investments by
    a. explaining the concept of leverage;
    b. computing the time value of money;
    c. identifying discounted and non-discounted investment criteria.
3. Demonstrate an understanding of the feasibility of real estate investments by
    a. comparing diverse real estate investments;
    b. analyzing alternative real estate investment opportunities;
    c. evaluating the nature of the real estate market.
4. Demonstrate an understanding of the sources of funds for real estate investments by
    a. identifying sources of funds;
    b. outlining financing for real estate investments;
    c. contrasting real estate ownership interests;
    d. describing leverage.

RELE 1311 - Law of Contracts

General

Course Key
562

Course Rubric	Course Number	Course Title
RELE	1311	Law of Contracts

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Elements of a contract, offer and acceptance, statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms, and owner disclosure requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss the elements of a contract; differentiate the legal effects of a contract; describe the statute of frauds; explain specific performance and remedies for breach; identify practices that would constitute unauthorized practice of law; and examine the owner disclosure requirements.

1. Demonstrate an understanding of the elements of a valid contract by
    a. using contract terminology;
    b. identifying legally competent parties;
    c. comprehending what constitutes consideration;
    d. outlining the process of offer and acceptance;
    e. explaining the concept of mutual agreement;
    f. describing the concept of legal objective.
2. Demonstrate an understanding of the rules and regulations of a valid contract by
    a. analyzing the impact of the Statute of Frauds;
    b. contrasting the difference between a void and voidable contract;
    c. contrasting the difference between an executory and executed contract;
    d. describing the remedies for breach of contract;
    e. describing the rules of construction;
    f. explaining the statute of limitations.
3. Demonstrate an understanding of the special requirements of a real estate contract by
    a. describing the methods used in legal descriptions;
    b. explaining the concept of earnest money;
    c. analyzing the use of special provisions;
    d. explaining the use of addenda;
    e. identifying time considerations in the closing process;
    f. analyzing the owner disclosure requirement;
    g. explaining the concept of title insurance.
4. Demonstrate an understanding of the rules relating to use of contract forms by
    a. explaining the rationale for the adoption of promulgated contract forms;
    b. outlining the unauthorized practice of law;
    c. explaining the Texas Real Estate Commission rules for contract forms;
    d. analyzing the priority rules for handwritten, typed, and preprinted provisions.

RELE 1315 - Property Management

General

Course Key
570

Course Rubric	Course Number	Course Title
RELE	1315	Property Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). The role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the agent/owner relationship; define the types of leasehold estates and elements of a valid lease; explain the landlord tenant relationship; and identify ways the Fair Housing Laws can be applied.

1. Demonstrate an understanding of the role of a property manager by
    a. using a management plan;
    b. outlining working relations with property owners;
    c. describing property management activities;
    d. evaluating property management.
2. Demonstrate an understanding of landlord policies by
    a. devising tenant regulations;
    b. distinguishing types of leases;
    c. evaluating negotiations with tenants;
    d. outlining the management of tenant relations.
3. Demonstrate an understanding of operational guidelines by
    a. comprehending maintenance procedures;
    b. outlining safety and environmental issues;
    c. identifying insurance requirements.
4. Demonstrate an understanding of the legal environment by
    a. comprehending eviction law and procedure;
    b. applying habitability laws;
    c. comprehending landlord and tenant codes;
    d. applying fair housing policies.

RELE 1319 - Real Estate Finance

General

Course Key
578

Course Rubric	Course Number	Course Title
RELE	1319	Real Estate Finance

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity laws affecting mortgage lending, Community Reinvestment Act, and the state housing agency.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Compare various types of financing available to clients and customers; explain the function of the primary and secondary money markets; list the types of lenders and explain the types of loans they provide; evaluate the buyer and the property using lender guidelines; and calculate net sheets for both parties in a real estate transaction.

1. Demonstrate an understanding of the sources of funds for real estate lending by
    a. describing the monetary system;
    b. identifying primary and secondary markets;
    c. explaining the role of money in lending;
    d. tracing loan processing;
    e. describing mortgage theory;
    f. describing the Federal Reserve System.
2. Demonstrate an understanding of the lending programs available in real estate by
    a. describing the conventional loan programs;
    b. describing HUD-FHA loan programs;
    c. describing veteran loan programs;
    d. distinguishing non-institutional lenders;
    e. distinguishing primary mortgage lenders.
3. Demonstrate an understanding of the federal, state, and local laws and regulations relating to real estate finance by
    a. explaining Texas community property law;
    b. outlining the Texas Homestead Act;
    c. recalling the Real Estate Settlement Procedures Act;
    d. recalling Truth in Lending rules;
    e. tracing community reinvestment laws;
    f. outlining equal credit opportunity laws;
    g. explaining the role of the Texas Department of Housing and Community Affairs.
4. Demonstrate an understanding of the procedures for loan application by
    a. explaining the significance of interest rates;
    b. explaining the loan qualification process;
    c. identifying the required loan documents;
    d. tracing real estate closing procedures;
    e. determining closing costs.

RELE 1406 - Principles of Real Estate

General

Course Key
9626

Course Rubric	Course Number	Course Title
RELE	1406	Principles of Real Estate

Semester Credit Hours	Lecture Hours	Lab Hours
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) A complete overview of licensing as a broker or salesperson. Includes ethics of practice as a license holder; titles to and conveyance of real estate; legal descriptions, deeds, encumbrances and liens; distinctions between personal and real property; appraisal, finance and regulations; closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. Fulfills the 4 semester hours of Principles of Real Estate required for the salesperson license.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define the principles of real estate and how they apply to the real estate industry; describe titles to and conveyance of real estate; discuss legal descriptions, deeds, encumbrances and liens; discuss Texas Real Estate License Act (TRELA); distinguish differences between personal and real property; outline the federal, state, and municipal laws related to discrimination in the real estate; outline closing procedures; and list examples of laws relating to fair housing; describe appraisal, finance and regulations; and solve real estate mathematical problems.

1. Demonstrate an understanding of the forms of ownership for real property by
    a. using terminology of the ownership of real property;
    b. distinguishing between real and personal property;
    c. explaining legal descriptions;
    d. defining the types of individual ownership;
    e. defining the types of business ownership;
    f. explaining ad valorem taxes;
    g. identifying land use controls;
    h. defining the types of leasehold estates.
2. Demonstrate an understanding of the process through which ownership of real property is transferred by
    a. using terminology required to transfer real property;
    b. identifying elements of a real estate contract;
    c. tracing real property title records;
    d. explaining the organization of real property records;
    e. outlining steps in the foreclosure process;
    f. explaining closing procedures.
3. Demonstrate an understanding of the concepts of hypothecation and finance in a real property transaction by
    a. recalling mortgage theory;
    b. identifying elements of mortgage instruments;
    c. describing the appraisal processes;
    d. stating lending law and regulations;
    e. performing real estate payment calculations.
4. Demonstrate an understanding of the federal, state, and local laws and regulations relating to housing discrimination, housing credit discrimination, and community reinvestment by
    a. outlining the development and rationale of fair housing laws;
    b. describing the block busting concept;
    c. describing steering;
    d. identifying housing assistance programs.
5. Demonstrate an understanding of professional requirements of a real estate broker or salesperson by
    a. describing the licensing procedures for a real estate broker;
    b. describing the licensing procedures for a real estate salesperson;
    c. outlining the elements of the rules of ethics;
    d. explaining the rationale for The Real Estate License Act;
    e. identifying career opportunities in real estate.

RELE 2301 - Law of Agency

General

Course Key
591

Course Rubric
RELE

Course Number
2301

Course Title
Law of Agency

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying representation procedures, and the disclosure of an agency.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify reasons for suspension or revocation of a real estate license; illustrate ways in which agency relationships can be created and terminated; describe the fiduciary relationship that exists between an agent and his principal; explain the Deceptive Trade Practices Act as it affects the real estate agent and the duties and obligations of the client, customer, and agent; distinguish between dual agency and intermediary relationships; and summarize the mandatory Sellers Disclosure of Property Condition form.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the agency relationship by
    a. using agency terminology to describe relationships (2a);
    b. tracing the history of agency (2a, 2c);
    c. explaining how agency relationships are created (1d, 2a, 2c);
    d. analyzing the different types of agency relationships (2a);
    e. explaining how agency relationships are terminated (2a, 2c);
    f. explaining the duty of care to the principal (2a, 2c);
    g. outlining the agent's authority (2a).
2. Demonstrate an understanding of agency relationships in real estate transactions by
    a. using agency terminology to describe real estate agency relationships (2a);
    b. describing agency risk control (2c);
    c. explaining an agent's obligation to third parties (1d, 2c);
    d. describing seller agency (2c);
    e. describing buyer agency (2c);
    f. explaining disclosure procedures for agency relationships (1d, 2c).
3. Demonstrate an understanding of the types of brokerage firms in real estate transactions by
    a. identifying the types of agency agreements (2a);
    b. describing buyer agency (1d, 2c);
    c. describing seller agency (1d, 2c);
    d. describing single agency (1d, 2c);
    e. outlining the use of multiple listing services (2a);
    f. identifying the employment relationships in real estate brokerage (2c).
4. Demonstrate an understanding of the federal, state, and local laws and regulations relating to agency relationships by
    a. outlining the Deceptive Trade Practices Act (2a);
    b. explaining promulgated contract forms as related to agency (2d);
    c. explaining the Real Estate Settlement Procedures Act as related to agency (2d);
    d. outlining agency rules for real estate licensure (2a);
    e. outlining the Texas Real Estate Commission rules on agency (2a).

RNSG 1105 - Nursing Skills I

General

Course Key
13617

Course Rubric
RNSG

Course Number
1105

Course Title
Nursing Skills I

Semester Credit Hours
1

Lecture Hours
0

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3)Study of the concepts and principles necessary to perform basic nursing skills for the adult patient; and demonstrate competence in the performance of nursing procedures. Content includes knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Focus is on holistic human needs. Associate Degree nurse role assimilation is facilitated through the development of identified major concepts. Credit by Examination is available for Fast Track Option. Enrollment requires official acceptance into the Nursing Program. Required Prerequisites: BIOL-2401, BIOL-2402, BIOL-2420 and appropriate TSI Math placement score. Required Corequisites: RNSG-1413 and RNSG-1360 (If it is the second attempt at passing this course, then the co-requisite may be waived)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take BIOL-2401(13000) BIOL-2402(13001) BIOL-2420(13002); # Take MATH-PASS MATH-DEV2 MATH-DV22 MATH-DV23 MATH-CR01 MATH-1314(12859) MATH-1324(12867) MATH-0362(10159) or MATH-0119; Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # TAKE RNSG-1413 RNSG-1360;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply concepts and principles necessary for the performance of basic nursing skills for the adult patient; and demonstrate competence/clinical reasoning in the performance of basic nursing procedures and practices. Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of standard protocols for nursing interventions, CDC guidelines, and universal precautions by
    a. recognizing standard protocols for nursing intervention(s) (1a, 1b, 1c, 2b);
    b. identifying CDC guidelines and universal precautions (1a, 1b, 1c, 2b);
    c. identifying principles of medical and surgical asepsis (1a, 1b, 1c, 2b);
    d. demonstrating medical aseptic hand washing (1a, 1b, 1c, 2a, 2b);
    e. demonstrating proper donning and removal of personal protective equipment (1a, 1b, 1c, 2b);
    f. demonstrating proper donning and removal of sterile gloves (1a, 1b, 1c, 2b).
2. Identify the principles of oral medication administration, including the six rights of medication administration by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2b);
    b. identifying routes of oral and non-parenteral medication administration (1a, 1b, 1c, 2b);
    c. recognizing appropriate equipment and supplies for oral and nonparenteral medication administration (1a, 1b, 1c, 2b);
    d. calculating medication dosage (1a);
    e. identifying patient safety needs, according to the six rights of medication administration (TCC uses the acronym TRAMPD) (1a, 1b, 1c, 2a, 2b);
    f. applying principles of medical and surgical asepsis during the preparation and administration of oral medication (1a, 1b, 1c, 2a, 2b);
    g. applying CDC guidelines and universal precautions during the preparation and administration of oral medication (1a, 1b, 1c, 2a, 2b);
    h. identifying the nursing role in patient/family education (1a, 1b, 1c, 2a, 2b);
    i. evaluating the patient's response to the administered medications (1a, 1b, 1c, 2b);
    j. documenting the nursing intervention(s) (1a, 1b, 1c, 2b);
    k. defining desired effects, side effects, adverse reactions, anaphylactic reactions, toxic effects, aero chamber, metered-dose inhaler, sublingual, buccal, enteric coating, suppository, instillation, and unit-dose (1a, 1b, 1c, 2b).

3. Perform parenteral medication administration by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2b);
    b. identifying routes of parenteral medication administration (intradermal, subcutaneous, intramuscular, intravenous) (1a, 1b, 1c, 2b);
    c. identifying IM and SUB-Q injection sites and physical landmarks (1a, 1b, 1c, 2b);
    d. selecting appropriate equipment and supplies for parenteral medication administration (1a, 1b, 1c, 2b);
    e. calculating medication dosage (1a);
    f. demonstrating knowledge of patient safety needs according to the six rights (TRAMPD) (1a, 1b, 1c, 2a, 2b);
    g. educating the patient about the therapeutic levels, effects, side effects, and approximate onset of drug, during IM/Sub-Q performance evaluation (1a, 1b, 1c, 2b);
    h. applying principles of medical and surgical asepsis during the preparation and administration of parenteral medication (1a, 1b, 1c, 2b);
    i. applying CDC guidelines and universal precautions during the preparation and administration of parenteral medication (1a, 1b, 1c, 2b);
    j. applying clinical reasoning and nursing science as a basis for decision making (1a, 1b, 1c, 2b);
    k. identifying the nursing role in patient/family education (1a, 1b, 1c, 2b);
    l. identifying the patient's response to the medications administered (1a, 1b, 1c, 2b);
    m. documenting the nursing intervention(s) (1a, 1b, 1c, 2b);
    n. individualizing and implementing teaching plans while delivering simulated nursing care (1a, 1b, 1c, 2b);
    o. documenting teaching interventions while delivering simulated nursing care (1a, 1b, 1c, 2b);
    p. demonstrating written and verbal communication skills that are legible, accurate, and complete (1a, 1b, 1c, 2b);
    q. defining injection, parenteral, ampule, vial, aspirate, Z-track, filter needle/straw, blunt cannula, intramuscular injection, subcutaneous injection, and intradermal injection (1a, 1b, 1c, 2b).

4. Perform nasogastric tube management by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2b);
    b. discussing the rationale/indications for nasogastric intubation (1a, 1b, 1c, 2b);
    c. identifying the various types of gastric/intestinal tubes (Levine, Salem Sump, Dobb Hoff, PEG) (1a, 1b, 1c, 2b);
    d. identifying methods of enteral feeding (bolus and continuous) (1a, 1b, 1c, 2b);
    e. selecting appropriate equipment and supplies for nasogastric tube insertion and discontinuation (1a, 1b, 1c, 2b);
    f. demonstrating patient assessment prior to nasogastric tube insertion and discontinuation (1a, 1b, 1c, 2b);
    g. demonstrating nasogastric tube insertion (1a, 1b, 1c, 2a, 2b);
    h. applying principles of medical and surgical asepsis during nasogastric intubation (1a, 1b, 1c, 2a, 2b);
    i. applying CDC guidelines and universal precautions during nasogastric intubation (1a, 1b, 1c, 2a, 2b);
    j. demonstrating self-directed behaviors needed for patient safety (1a, 1b, 1c, 2b);
    k. evaluating patient's response to nasogastric intubation (1a, 1b, 1c, 2b);
    l. identifying the nursing role in patient/family education (1a, 1b, 1c, 2a, 2b);
    m. documenting the nursing intervention(s) (1a, 1b, 1c, 2b);
    n. defining aspirate, decompression, paralytic ileus, enteral feeding, nasogastric, nasointestinal, and PEG (1a, 1b, 1c, 2b).

5. Apply the principles of sterile technique while performing urinary catheterization by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2b);
    b. identifying the different types of urinary catheters (1a, 1b, 1c, 2b);
    c. selecting appropriate equipment and supplies for urinary catheterization (1a, 1b, 1c, 2b);
    d. discussing the indications for urinary catheterization (1a, 1b, 1c, 2b);
    e. demonstrating urinary catheter insertion (1a, 1b, 1c, 2b);
    f. applying the principles of medical and surgical asepsis during urinary catheter insertion (1a, 1b, 1c, 2a, 2b);
    g. applying CDC guidelines and universal precautions during urinary catheter insertion (1a, 1b, 1c, 2a, 2b);
    h. identifying the nursing role in patient/family education (1a, 1b, 1c, 2a, 2b);
    i. demonstrating self-directed behaviors needed for patient safety (1a, 1b, 1c, 2b);
    j. evaluating the patient response to urinary catheter insertion (1a, 1b, 1c, 2b);
    k. documenting the nursing intervention(s) (1a, 1b, 1c, 2b);
    l. defining catheterization, indwelling catheter, straight catheter, suprapubic catheter, securement device, sterile technique, and sterile field (1a, 1b, 1c, 2b).

6. Apply the principles of sterile technique while performing sterile dressing change by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2b);
    b. following the steps for suture/staple removal (1a, 1b, 1c, 2a, 2b);
    c. identifying gravity and closed wound drainage systems (Hemovac, Jackson Pratt) (1a, 1b, 1c, 2b);
    d. identifying factors affecting wound healing (1a, 1b, 1c, 2b);
    e. identifying types of dressings (dry, moist, and transparent) (1a, 1b, 1c, 2b);
    f. stating the functions of a wound dressing (1a, 1b, 1c, 2b);
    g. performing sterile dressing change (1a, 1b, 1c, 2b);
    h. demonstrating patient and wound assessment prior to sterile dressing change (1a, 1b, 1c, 2a, 2b);
    i. applying principles of medical and surgical asepsis during sterile dressing change (1a, 1b, 1c, 2a, 2b);
    j. applying CDC guidelines and universal precautions during sterile dressing change (1a, 1b, 1c, 2a, 2b);
    k. identifying the nursing role in patient/family education (1a, 1b, 1c, 2a, 2b);
    l. demonstrating self-directed behaviors needed for patient safety (1a, 1b, 1c, 2b);
    m. evaluating the patient response to sterile dressing change (1a, 1b, 1c, 2b);
    n. documenting the nursing intervention(s) (1a, 1b, 1c, 2b);
    o. defining debridement, erythema, granulation, maceration, sanguineous, sero-sanguineous, serous, purulent, hemorrhage, infection, dehiscence, evisceration, fistula, Penrose drain, and delayed wound closure (1a, 1b, 1c, 2b).

7. Identify proper administration and management of oxygenation therapy by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2a, 2b);
    b. discussing the rationale for promoting oxygenation (1a, 1b, 1c, 2b);
    c. discussing airway maintenance methods (oral airway, nasal airway, endotracheal tube, and tracheostomy) (1a, 1b, 1c, 2b);
    d. identifying types of oxygen delivery systems (nasal cannula, simple mask, venture mask, partial rebreather, and non-rebreather) (1a, 1b, 1c, 2b);
    e. identifying appropriate equipment and supplies needed for suctioning and tracheostomy care (1a, 1b, 1c, 2b);
    f. identifying types of suctioning procedures (nasopharyngeal, oropharyngeal, endotracheal, and tracheostomy) (1a, 1b, 1c, 2b);
    g. describing principles of medical and surgical asepsis during suctioning procedures (1a, 1b, 1c, 2b);
    h. describing CDC guidelines and universal precautions during suctioning procedures (1a, 1b, 1c, 2b);
    i. identifying the nursing role in patient/family education (1a, 1b, 1c, 2b);
    j. discussing tracheostomy care (1a, 1b, 1c, 2b);
    k. describing self-directed behaviors needed for patient safety (1a, 1b, 1c, 2b);
    l. summarizing the documentation of the nursing intervention(s) (1a, 1b, 1c, 2b);
    m. defining artificial airway, aspirate, atelectasis, bronchospasm, closed-system catheter, endotracheal tube, hypoxemia, hypoxia, hyperventilation, hypoventilation, intubation, nasal airway, oral airway, sputum, suction, suction catheter, chest tube, pneumothorax, hemothorax, and tracheostomy (1a, 1b, 1c, 2b).

8. Perform peripheral intravenous venipuncture by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2a, 2b);
    b. discussing the indications for peripheral intravenous venipuncture (1a, 1b, 1c, 2b);
    c. identifying various venous access devices (angiocath, protective cath, CVC, implanted infusion port, and PICC) (1a, 1b, 1c, 2b);
    d. identifying complications of peripheral intravenous venipuncture (1a, 1b, 1c, 2b);
    e. selecting appropriate equipment and supplies for peripheral intravenous venipuncture (1a, 1b, 1c, 2b);
    f. identifying venipuncture site dressings (opaque and transparent) (1a, 1b, 1c, 2b);
    g. performing patient assessment and preparation for peripheral intravenous venipuncture (1a, 1b, 1c, 2a, 2b);
    h. performing peripheral intravenous venipuncture (1a, 1b, 1c, 2a, 2b);
    i. applying principles of medical and surgical asepsis during insertion and discontinuation of peripheral intravenous venipuncture (1a, 1b, 1c, 2a, 2b);
    j. applying CDC guidelines and universal precautions during insertion and discontinuation of peripheral intravenous venipuncture (1a, 1b, 1c, 2a, 2b);
    k. identifying the nursing role in patient/family education (1a, 1b, 1c, 2a, 2b);
    l. demonstrating self-directed behaviors needed for patient safety (1a, 1b, 1c, 2b);
    m. evaluating the patient response to peripheral intravenous venipuncture (1a, 1b, 1c, 2b);
    n. documenting the nursing intervention(s) (1a, 1b, 1c, 2b);
    o. defining intravenous, infiltration, phlebitis, central venous catheter, infusion port, injection cap, aspirate, patency, thrombosis, venipuncture, chevron, stabilization device, heparin lock, and saline well (1a, 1b, 1c, 2b).

9. Describe the principles of intravenous medication administration by
    a. applying standard protocols for nursing intervention(s) (1a, 1b, 1c, 2a, 2b);
    b. identifying rationale/indications for intravenous medication administration (1a, 1b, 1c, 2b);
    c. identifying intravenous medication administration methods (continuous, IV push, IV bolus, IV piggyback) (1a, 1b, 1c, 2b);
    d. identifying nursing responsibilities in management of heparin lock/saline lock (saline, saline-heparin, SAS, and SASH) (1a, 1b, 1c, 2b);
    e. selecting appropriate equipment and supplies for intravenous medication administration (1a, 1b, 1c, 2b);
    f. identifying IV pumps/controllers rationales and safety measures (1a, 1b, 1c, 2b);
    g. identifying IV solutions and solution administration sets (packaging and expiration dates) (1a, 1b, 1c, 2b);
    h. computing and regulating intravenous flow rate (1a);
    i. computing and regulating medication flow rate (1a);
    j. identifying patient safety needs, according to the six rights of medication administration (TRAMPD), and IV competencies (1a, 1b, 1c, 2a, 2b);

k. applying principles of medical and surgical asepsis during the preparation and administration of intravenous medication (1a, 1b, 1c, 2a, 2b);

l. applying CDC guidelines and universal precautions during the preparation and administration of intravenous medication (1a, 1b, 1c, 2a, 2b);

m. identifying the nursing role in patient/family education (1a, 1b, 1c, 2a, 2b);

n. evaluating the patient's response to the administered medication(s) (1a, 1b, 1c, 2b);

o. documenting the nursing intervention(s) (1a, 1b, 1c, 2b);

p. defining intravenous injection, IV bolus, IV push, keep vein open (KVO), macro drops, micro drops, isotonic, hypotonic, hypertonic, controlled volume sets, compatibility, diluent, solution set, IVPB, primary set, and secondary medication set (1a, 1b, 1c, 2b).

RNSG 1201 - Pharmacology

General

Course Key
14710

Course Rubric	Course Number	Course Title
RNSG	1201	Pharmacology

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of drug classifications. Content includes the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. This course lends itself to either a blocked or integrated approach. Required Prerequisite: RNSG-1413 Recommended Co-Requisite: RNSG-1441

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TaKE RNSG-1413;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # TAKE RNSG-1441;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Corequisite(s): RNSG 1413 and RNSG 1360

Course Learning Outcomes

Course Learning Outcomes
Upon successful completion of this course, students will: Identify the roles and responsibilities of the professional nurse in administering pharmacological agents; and explain the safe utilization of medications; identify ethical and legal principles to the administration of medication.

The student will be able to:

1. Use terminology associated with pharmacology (1a, 1b)
2. Use appropriate sources of drug information to research prescribed medication. (1a, 1b, 2a, 2c, 2d, 2e)
3. Apply the six right of medication administration during the preparation, administration and documentation medication therapy. (1a, 1b, 2a, 2c, 2d, 2e)
4. Develop a drug profile for each prototype as assigned: (1a, 1b, 2a, 2c, 2d)
    1. drug action
    2. adverse reactions
    3. drug dosage forms
    4. recommended dosages and routes of administration
    5. nursing intervention appropriate to alleviate or prevent drug adverse reaction
5. Use basic knowledge to be able to complete the nursing responsibilities needed to deliver safe patient care while meeting the pharmacological needs of the patient. (1a, 1b, 2a, 2b, 2c, 2d 2e)
6. Use knowledge base to monitor the patient's response to drug therapy and collaborate with members of the health care team whenever needed to clarify orders, and report the individual's response to medication prescribed. (1a, 1b, 2a, 2b, 2c, 2d 2e)
7. Use patient education resources designed to meet the health care needs of the individual, discuss the expectations of therapy and degree of symptom relief that can be anticipated, to evaluate the individual's response to the medication prescribed (1a, 1b, 2a, 2b, 2c, 2d 2e)
8. Identify classification of medications.
9. Identify commonly prescribed medications and related information in each classification. (1a, 1b, 2a)
10. Relate possible drug interactions for specific drugs. (1a, 1b, 2a, 2c)
11. Evaluate the patient for possible adverse drug. (1a, 1b, 2a, 2c)
12. Demonstrate health teaching related to drug therapy. (1a, 1b, 2a, 2c)
13. Demonstrate critical thinking and problem solving ability. (1a, 1b, 2a, 2c)

RNSG 1360 - Clinical - Registered Nursing/Nurse

General

Course Key
13618

Course Rubric	Course Number	Course Title
RNSG	1360	Clinical - Registered Nursing/Registered Nurse

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	9

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-9)A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Focus is on holistic human needs. Associate Degree nurse role assimilation is facilitated through the development of identified major concepts. Credit by Examination is available for Fast Track Option. Enrollment requires official acceptance into the Nursing Program. Required Prerequisites: BIOL-2401, BIOL-2402, BIOL-2420, and appropriate TSI Math placement score. Required Corequisites: RNSG-1105 and RNSG-1413 (If it is the second attempt at passing this course, then the co-requisite may be waived)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take BIOL-2401(13000) BIOL-2402(13001) BIOL-2420(13002);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-1105 and RNSG-1413
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-PASS or MATH-DEV2; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # MATH-DV22 MATH-DV23 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1413
Recommended Corequisite(s): RNSG 1441

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Safety: Demonstrate knowledge and self-directed behaviors for client safety

1. Implement measures to promote a safe environment for patients and others by
    a. identifying patients accurately (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. performing nursing procedures and skills correctly (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. implementing and maintaining measures to prevent exposure to infectious pathogens and communicable conditions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. maintaining and monitoring for the chemical safety of the patient by stating the rationale for and the effects of medications and treatments and correctly administering the same (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. maintaining and monitoring for the thermal safety of the patient (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. assuring the psychological safety of the patient by using stress control methods and therapeutic communication (1a, 1b, 1c, 2a, 2b, 2c);
    g. advocating for the patient/family (1a, 1b, 1c, 2a, 2b, 2c);
    h. implementing patient care according to legal and ethical, state, and national standards (1a, 1b, 1c, 2a, 2b, 2c).

Professionalism: Demonstrate the attitudes and values of the nursing profession

2. Demonstrate the attitudes and values of the nursing profession by
    a. demonstrating responsibility and accountability for the quality of nursing care provided to patients and their families (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. complying with policies and procedures of Tarrant County College, the Nursing Department, the course, and the clinical facility (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. complying with the professional, ethical, and legal standards of nursing (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. demonstrating evidence-based clinical practice (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. maintaining patient confidentiality and professional boundaries (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. interacting with patients, nursing faculty, and healthcare team in a professional manner (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    g. selecting learning experiences that enhance competence (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. organizing and completing assigned tasks in appropriate time (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

Caring Approach: Demonstrate caring behaviors toward self and others

3. Demonstrate caring behaviors toward self and others by
    a. demonstrating caring behaviors in nursing process development and implementation (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. providing culturally sensitive healthcare to patients and their families (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. providing safe, compassionate, comprehensive nursing care to patients and their families (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. assisting the client in achieving optimum comfort and functioning (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. interacting with patients and others to build respect and trust (1a, 1b, 1c, 2a, 2b, 2c, 2d).

Teaching: Identify teaching/learning principles to meet the basic needs of patients

4. Identify teaching/learning principles to meet the basic needs of patients by
    a. identifying learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. collaborating with patient and interdisciplinary health care team to develop individual teaching plans based upon patient/family learning style and needs by using best practice standards and other evidence based findings in developing teaching plans for patients/families (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. developing and implementing individualized patient and family teaching (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. identifying appropriate teaching methods (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. documenting teaching interventions, patient, and family response (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

Clinical Reasoning: Apply clinical reasoning skills in problem solving and decision making when providing basic nursing care

5. Apply clinical reasoning skills in problem solving and decision making when providing basic nursing care by
    a. applying clinical reasoning and nursing science as a basis for decision making in nursing practice (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. applying the systematic problem solving process to develop a comprehensive plan of care for patients with basic health care needs (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing and documenting assessments using a systematic approach (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. prioritizing and implementing components of the nursing process utilizing a holistic approach (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. evaluating the achievement of patient outcomes (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. modifying the plan of care as needed (1a, 1b, 1c, 2a, 2b, 2c, 2d).

Communication: Implement beginning communication skills with patients, families, and members of the interdisciplinary healthcare team

6. Implement beginning communication skills with patients, families, and members of the interdisciplinary healthcare team by
    a. applying strategies of coordination, collaboration, and communication to plan, deliver, and evaluate interdisciplinary healthcare (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. demonstrating verbal and nonverbal communication skills that are relevant, accurate, clear, complete, timely, understandable, and therapeutic (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. demonstrating written communication skills that are legible, relevant, accurate, complete, and meaningful (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. demonstrating active listening, genuineness, observational skills, physical attentiveness, and interviewing skills (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. maintaining eye contact (when culturally appropriate) (1a, 1b, 1c, 2a, 2b, 2c, 2d).

Collaboration: Demonstrate the ability to collaborate with other members of the healthcare team, while delivering basic nursing care

7. Demonstrate the ability to collaborate with other members of the healthcare team while delivering basic nursing care by
    a. identifying members of interdisciplinary team (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. functioning as a member of an interdisciplinary team (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. collaborating with the interdisciplinary health care team to implement quality patient care (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. identifying appropriate community agencies and health care resources to provide continuity of care (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. following chain of command (1a, 1b, 1c, 2a, 2b, 2c, 2d).

RNSG 1413 - Foundations for Nursing Practice

General

Course Key
15229

Course Rubric
RNSG

Course Number
1413

Course Title
Foundations for Nursing Practice

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) Introduction to the role of the professional nurse as provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession. Content includes fundamental concepts of nursing practice, history of professional nursing, clinical reasoning processes and clinical judgment. Emphasis on knowledge, judgment, skills and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Credit by Examination is available for Fast Track Option. Enrollment requires official acceptance into the Nursing Program. Required Prerequisites: BIOL-2401, BIOL-2402 and BIOL-2420 and appropriate TSI Math placement score. Required Corequisites: RNSG-1105 and RNSG-1360 (if it is the second attempt at passing this course, then the co-requisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take BIOL-2401(13000) BIOL-2402(13001) BIOL-2420(13002);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # TAKE RNSG-1105 RNSG-1360;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take MATH-0362(10159) or MATH-0119; Minimum grade C; # Take MATH-PASS or MATH-DEV2; # Take MATH-1314(12859) or MATH-1324(12867); Minimum grade C; # MATH-DV22 MATH-DV23 MATH-CR01;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402, BIOL 2420, and appropriate TSI-Math placement score
Required Corequisite(s): RNSG 1105 and RNSG 1413

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes:

Describe the roles of the nurse in the delivery of health care; use basic nursing skills; examine the fundamental concepts of nursing practice; describe clinical reasoning processes and clinical judgment in professional nursing.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Review TCC's nursing program philosophy by
    a. differentiating major concepts of the program curriculum (1a, 1b, 2c);
    b. identifying roles of the AND graduate (1a, 1b, 2c).

2. Examine nursing's professional status by
    a. identifying historical events influencing nursing practice (1a, 1b, 2c);
    b. distinguishing among definitions of nursing (1a, 1b, 2c);

c. comparing nursing roles and functions in nursing practice (1a, 1b, 2c, 2d);

d. integrating accountability, autonomy, and authority in nursing practice (1a, 1b, 2c, 2d);

e. identifying standards of nursing practice and practice settings (1a, 1b, 2c, 2d);

f. explaining the functions and purposes of health care agencies (CDC, NIH, PHS, VA) (1a, 1b, 2c, 2d);

g. distinguishing among ADN, diploma, baccalaureate, and graduate education and their respective accrediting agencies (NLN) (1a, 1b, 2c, 2d);

h. comparing nursing career pathways (1a, 1b, 2c, 2d).

3. Evaluate current health care delivery trends by

a. identifying trends affecting nursing (1a, 1b, 2c, 2d);

b. explaining effects of current legislation on health care (1a, 1b, 2c, 2d).

4. Comprehend well/illness concept by

a. identifying well/illness models (1a, 1b, 2c);

b. defining illness and wellness behavior (1a, 1b, 2c);

c. defining mental health/illness (1a, 1b, 2c);

d. describing stages of illness (1a, 1b, 2c);

e. describing illness's impact on patient, clients, and family (1a, 1b, 2c);

f. distinguishing among primary, secondary, and tertiary prevention (1a, 1b, 2c);

g. identifying the role of genetic factors in maintaining health and preventing illness (1a, 1b, 2c).

5. Explain stress/adaptation concept by

a. defining stress, stressor, adaptation, coping, and homeostasis (1a, 1b, 2c);

b. identifying Selye's three stages of the stress response (1a, 1b, 2c);

c. explaining adaptive and maladaptive mechanisms of stress (1a, 1b, 2c);

d. describing the manifestation of stress (1a, 1b, 2c).

6. Apply critical thinking skills by

a. explaining critical thinking (1a, 1b, 2c, 2d);

b. describing critical thinking characteristics (1a, 1b, 2c, 2d);

c. explaining critical thinking attitudes and cognitive skills (1a, 1b, 2c, 2d);

d. distinguishing among inductive reasoning, deductive reasoning, problem solving, and decision making (1a, 1b, 2c, 2d).

7. Explain Maslow's Hierarchy by

a. describing physiological, safety/security, love/belonging, self-esteem, and self-actualization needs (1a, 1b, 2c, 2d);

b. describing factors affecting need satisfaction (1a, 1b, 2c, 2d);

c. explaining the relationship of human needs, stress, adaptation, and ADLs (1a, 1b, 2c, 2d).

8. Explain nursing process by

a. identifying the steps of the nursing process (1a, 1b, 2c, 2d);

b. comprehending assessment (1a, 1b, 2c, 2d);

c. comprehending nursing diagnosis (1a, 1b, 2c, 2d);

d. comprehending planning (1a, 1b, 2c, 2d);

e. comprehending implementation (1a, 1b, 2c, 2d);

f. comprehending evaluation (1a, 1b, 2c, 2d).

9. Examine the documentation process by

a. discussing nursing verbal reports (1a, 1b, 2c, 2d);

b. identifying legal aspects of recordkeeping (1a, 1b, 2c, 2d);

c. explaining nursing audit (1a, 1b, 2c, 2d);

d. examining patient/client records (1a, 1b, 2c, 2d).

10. Identify the various types of diagnostic testing by

a. discussing the nurses' roles for diagnostic testing (1a, 1b, 2a, 2c, 2d, 2e);

b. discussing the common blood tests (1a, 1b, 2a, 2c, 2d, 2e);

c. discussing the common specimen collection methods (1a, 1b, 2a, 2c, 2d, 2e);

d. discussing the common imaging procedures used in diagnostic testing (1a, 1b, 2a, 2c, 2d, 2e).

11. Examine teaching/learning process by

a. describing factors affecting learning (1a, 1b, 2a, 2b, 2c, 2d, 2e);

b. explaining teaching/learning domains (1a, 1b, 2a, 2b, 2c, 2d, 2e);

c. identifying teaching/learning guidelines (1a, 1b, 2a, 2b, 2c, 2d, 2e);

d. applying the nursing process as it relates to teaching/learning concepts (1a, 1b, 2a, 2b, 2c, 2d, 2e).

12. Examine communication principles by

a. explaining the communication model (1a, 1b, 2b, 2c, 2d);

b. identifying verbal and nonverbal behaviors (1a, 1b, 2b, 2c, 2d);

c. listing factors influencing communication process (1a, 1b, 2b, 2c, 2d).

13. Explain communication process by

a. distinguishing the difference among therapeutic/non-therapeutic/social communication (1a, 1b, 2b, 2c, 2d);

b. applying the nursing process as it relates to patient/client communication needs (1a, 1b, 2b, 2c, 2d).

14. Identify nurse/patient/client/ relationship by

a. describing the characteristics of a helping relationship (1a, 1b, 2b, 2c, 2d);

b. describing the phases of a helping relationship (1a, 1b, 2b, 2c, 2d);

c. identifying the sources of conflict in the nurse/patient/client relationship (1a, 1b, 2b, 2c, 2d).

15. Describe the concept of caring by

a. identifying definitions of caring (1a, 1b, 2b, 2c, 2d);

b. applying the nursing process as it relates to the concept of caring (1a, 1b, 2b, 2c, 2d).

16. Examine cultural diversity issues by

a. discussing cultural groups (1a, 1b, 2b, 2c, 2d);

b. identifying health care beliefs of various cultural groups (1a, 1b, 2b, 2c, 2d);

c. describing cultural conflicts in health care (1a, 1b, 2b, 2c, 2d);

d. describing culture shock principles (1a, 1b, 2b, 2c, 2d).

17. Describe self-concept issues by

a. describing the characteristics of positive/negative self-concept (1a, 1b, 2b, 2c);

b. explaining the nursing process as it relates to self-concept issues (1a, 1b, 2b, 2c).

18. Examine methods to assess patients/clients at risk for injury by

a. analyzing factors that affect an individual's safety (1a, 1b, 2c);

b. examining the use and legal implications of restraints (1a, 1b, 2c);

c. applying the nursing process as it relates to patients/clients at risk for injury (1a, 1b, 2c).

19. Examine activity/mobility needs by

a. describing factors affecting activity/mobility (1a, 1b, 2c);

b. explaining benefits of active/passive exercise (1a, 1b, 2c);

c. describing effects of immobility (1a, 1b, 2c);

d. applying nursing process as it relates to activity/mobility needs (1a, 1b, 2c).

20. Evaluate skin integrity needs by

a. describing risk factors and contributing factors for pressure ulcer formation (1a, 1b, 2c);

b. explaining pathogenesis of pressure ulcers (1a, 1b, 2c);

c. distinguishing between the four stages of pressure ulcer development (1a, 1b, 2c);

d. applying the nursing process as it relates to skin integrity needs (1a, 1b, 2c).

21. Explain gastrointestinal system needs by

a. listing factors affecting defecation (1a, 1b, 2c);

b. identifying fecal elimination problems (1a, 1b, 2c);

c. explaining classification of medications used in the treatment of gastrointestinal problems (1a, 1b, 2c);

d. applying the nursing process as it relates to gastrointestinal needs (1a, 1b, 2c).

22. Explain genitourinary system needs by

a. listing factors affecting voiding (1a, 1b, 2c);

b. identifying urinary elimination problems (1a, 1b, 2c);
c. explaining the classification of medications used in the treatment of genitourinary problems (1a, 1b, 2c);
d. applying the nursing process as it relates to genitourinary needs (1a, 1b, 2c).

23. Determine nutritional needs by
a. explaining essential nutrient characteristics (1a, 1b, 2c);
b. identifying factors influencing diet behavior (1a, 1b, 2c);
c. identifying recommended dietary guidelines (1a, 1b, 2c);
d. applying the nursing process as it relates to nutrition (1a, 1b, 2c).

24. Examine medication administration principles by
a. describing pharmacokinetic principles (1a, 1b, 2c);
b. identifying drug actions and interactions (1a, 1b, 2c);
c. comprehending the use of drug classifications (1a, 1b, 2c);
d. exploring legal aspects in medication administration (1a, 1b, 2c);
e. explaining developmental/cultural differences related to medications (1a, 1b, 2c);
f. identifying genetic factors related to the metabolism of medications (1a, 1b, 2c);
g. applying nursing process as it relates to administration of medications (1a, 1b, 2c).

25. Explain infection control by
a. describing human defenses against infection (1a, 1b, 2c);
b. identifying clients at risk for acquiring infection (1a, 1b, 2c);
c. examining the CDC guidelines for standard precautions and transmission based precautions (1a, 1b, 2a, 2c);
d. applying nursing process as it relates to problems with infection (1a, 1b, 2c);
e. explaining the classification of medications used in the treatment of infection (1a, 1b, 2c).

26. Explain HIV/AIDS by
a. distinguishing HIV and AIDS (1a, 1b, 2c);
b. identifying modes of transmission (1a, 1b, 2c);
c. describing the classification of medications used to treat HIV/AIDS (1a, 1b, 2c);
d. applying the nursing process as it relates to patients/clients with HIV/AIDS (1a, 1b, 2c).

27. Explain growth and development principles by
a. summarizing the central tasks within Erikson's stages of growth and development (1a, 1b, 2c);
b. describing health care problems in adult stages of growth and development (1a, 1b, 2c);
c. applying the nursing process as it relates to growth and development issues (1a, 1b, 2c).

28. Analyze oxygenation needs by
a. listing factors affecting oxygenation (1a, 1b, 2c);
b. identifying alterations in the respiratory system (1a, 1b, 2c);
c. explaining the classification of medications used in the treatment of oxygenation problems (1a, 1b, 2c);
d. applying the nursing process as it relates to oxygenation needs (1a, 1b, 2c).

29. Explain anemia by
a. listing characteristics of anemia (1a, 1b, 2c);
b. identifying relevant lab values related to anemia: Hgb, Hct, MCV, and RBC (1a, 1b, 2a, 2c);
c. explaining the classification of medications used in the treatment of anemia (1a, 1b, 2c);
d. applying nursing process to patient/clients with anemia (1a, 1b, 2c).

30. Explain rest/sleep needs by
a. describing sleep cycle (1a, 1b, 2c);
b. listing factors affecting sleep (1a, 1b, 2c);
c. describing sleep disorders (1a, 1b, 2c);
d. discussing the classification of medications used in the treatment of rest/sleep problems (1a, 1b, 2c);
e. applying the nursing process as it relates to rest/sleep needs (1a, 1b, 2c).

31. Examine sensory needs by
a. describing types of sensory alterations (1a, 1b, 2c);
b. describing orientation data (1a, 1b, 2c);
c. explaining levels of consciousness (1a, 1b, 2c);
d. applying the nursing process as it relates to sensory needs (1a, 1b, 2c).

32. Explain pain management by
a. defining pain, pain threshold, TENS, PCA, endorphins, and phantom limb pain (1a, 1b, 2c);
b. listing factors affecting pain threshold (1a, 1b, 2c);
c. discussing the gate control theory of pain (1a, 1b, 2c);
d. differentiating between acute and chronic pain (1a, 1b, 2c);
e. discussing physical and psychological responses to pain (1a, 1b, 2c);
f. examining the classification of medications used in the treatment of pain (1a, 1b, 2c);
g. applying the nursing process as it relates to pain management (1a, 1b, 2c).

33. Examine legal issues by
a. examining general legal concepts applied to nursing (1a, 1b, 2c, 2d);
b. explaining the rights and obligations of nursing's legal role (1a, 1b, 2c, 2d);
c. identifying potential liability (1a, 1b, 2c, 2d);
d. explaining the purpose of the Texas Nurse Practice Act of State of Texas (1a, 1b, 2c, 2d);
e. identifying other selected legal aspects (1a, 1b, 2c, 2d);
f. explaining the legal responsibility of nursing students (1a, 1b, 2c, 2d).

34. Explain ethical issues by
a. examining the use of the ANA Professional Code of Ethics within nursing practice (1a, 1b, 2c, 2d);
b. comparing ethical principles within nursing practice (1a, 1b, 2c, 2d);
c. exploring ethical issues in health care impacting nursing (1a, 1b, 2c, 2d);
d. illustrating the steps in the ethical decision making process (1a, 1b, 2c, 2d);
e. examining ethical issues related to genetic testing and recording of genetic information (1a, 1b, 2c, 2d).

35. Explain health care values by
a. describing the values clarification process (1a, 1b, 2c);
b. discussing examples of personal values appropriate for patient/client care (1a, 1b, 2c).

36. Explain fluid/electrolyte balance by
a. identifying factors affecting fluid/electrolyte and acid/base balance (1a, 1b, 2c);
b. describing physiology/pathophysiology of fluid/electrolyte and acid/base balance (1a, 1b, 2c);
c. giving examples of lab values pertinent to fluid/electrolyte and acid/base balance/imbalance (1a, 1b, 2c);
d. examining the classifications of medication used in the treatment of fluid/electrolyte and acid/base problems (1a, 1b, 2c);
e. applying the nursing process as it relates to fluid/electrolyte and acid/base balance (1a, 1b, 2c).

37. Explain sexuality issues by
a. discussing factors affecting sexuality (1a, 1b, 2c);
b. describing the impact of illness and patient care treatments on sexuality (1a, 1b, 2c);
c. applying the nursing process as it relates to the concept of sexuality (1a, 1b, 2c).

38. Evaluate spiritual/religious needs by
a. evaluating various spiritual/religious beliefs that impact patient/client care issues (1a, 1b, 2c);
b. applying the nursing process as it relates to spiritual/religious needs (1a, 1b, 2c).

39. Describe grief/loss process by
a. illustrating three types of loss (1a, 1b, 2c);
b. discussing factors influencing patient/client/family response to loss (1a, 1b, 2b, 2c);
c. explaining theories of grieving process (1a, 1b, 2b, 2c);
d. describing nursing process in the grief/loss process (1a, 1b, 2c).

40. Examine death and dying by
a. discussing responses to death and dying (1a, 1b, 2b, 2c);
b. discussing examples of the clinical signs of death (1a, 1b, 2c);
c. applying the nursing process as it relates to death and dying (1a, 1b, 2c).

41. Apply knowledge of normal aging process by
    a. summarizing the theories of aging (1a, 1b, 2c);
    b. describing the central tasks of aging (1a, 1b, 2c);
    c. identifying the normal physiological changes of aging (1a, 1b, 2c);
    d. identifying the normal psychological changes of aging (1a, 1b, 2c);
    e. explaining the functional assessment of the older adult (1a, 1b, 2c);
    f. applying the nursing process as it relates to normal aging patterns (1a, 1b, 2c).

42. Explain impaired cognition by
    a. distinguishing between dementia and delirium (1a, 1b, 2c);
    b. applying the nursing process as it relates to dementia and delirium (1a, 1b, 2c).

43. Explain the change process by
    a. describing the theory of the change process (1a, 1b, 2c);
    b. giving examples of strategies for dealing with change (1a, 1b, 2c).

44. Explain leadership/management principles by
    a. describing the relationship between the change process and leadership/management (1a, 1b, 2c, 2d);
    b. giving examples of leadership/management styles (1a, 1b, 2c, 2d);
    c. comprehending coordinator of care role (1a, 1b, 2c, 2d).

45. Examine health care groups by
    a. describing facilitating group roles (1a, 1b, 2c, 2d);
    b. giving examples of the types of health care groups (1a, 1b, 2c, 2d);
    c. identifying the main functions of effective group (1a, 1b, 2c, 2d).

46. Evaluate perioperative nursing by
    a. describing the phases of the perioperative period (1a, 1b, 2c);
    b. identifying the types of surgery according to urgency, risk, and purpose (1a, 1b, 2c);
    c. identifying essential aspects of preoperative assessment and preparation (1a, 1b, 2c);
    d. examining essential elements of perioperative teaching (1a, 1b, 2c);
    e. comparing various types of anesthesia (1a, 1b, 2c).

RNSG 1441 - Common Concepts of Adult Health

General

Course Key
653

Course Rubric
RNSG

Course Number
1441

Course Title
Common Concepts of Adult Health

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) Basic integration of the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession. Study of the common concepts of caring for adult patients and families with medical-surgical health care needs related to body systems, emphasizing knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Required Prerequisites: RNSG-1413, RNSG-1360, and RNSG-1105 Required Corequisites: RNSG-1461 (If it is the second attempt at passing this course, then the co-requisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites and co-requisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take RNSG-1413 RNSG-1105; # Take RNSG-1360(11145) or RNSG-1460;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

Take RNSG-1461
Type
Concurrent

10
A Requirement block where all subrequirements are required

Take RNSG-1461
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401, BIOL 2402 and BIOL 2420 and appropriate TSI-Math placement score
Required Corequisite(s): RNSG 1105 and RNSG 1360

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the roles of the professional nurse in caring for adult patients and families; utilize clinical reasoning processes and clinical judgment in providing care for adult patients and families with common health needs.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the role of genetics in the etiology of selected medical-surgical disease processes by
    a. identifying disorders that are influenced by genetics (1a, 1b, 1c, 2a, 2c);
    b. planning care for patients with genetic disorders (1a, 1b, 1c, 2a, 2c).

2. Explain The Joint Commission's Performance/Accountability Measures by
    a. naming all Accountability Measures (1a, 1b, 1c, 2a, 2c);
    b. discussing the reason for the Performance/Accountability Measures initiation (1a, 1b, 1c, 2a, 2c);
    c. discussing nursing staff roles in Performance/Accountability Measures (1a, 1b, 1c, 2a, 2c).

3. Explain nursing management of patients with infections in each system by
    a. describing risk factors (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
    h. explaining complications (1a, 1b, 1c, 2a, 2c).

4. Explain nursing management of patients with selected cardiac dysrhythmias including: bradycardias, tachycardia, and atrial

dysrhythmias, ventricular, warning, and deadly dysrhythmias by

a. describing risk factors complications for each disorder (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

5. Explain nursing management of patients with cardiovascular disorders including: hypertension, coronary artery disease, angina, myocardial infarction, and congestive heart failure by

a. describing risk factors for each disease process (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disease process (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disease process (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses for each disease process (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions for each disease process (1a, 1b, 1c, 2a, 2c);
h. explaining complications for each disease process (1a, 1b, 1c, 2a, 2c).

6. Explain nursing management of patients with peripheral vascular disorders including: peripheral arterial disease, deep vein thrombosis, thrombophlebitis, varicose veins, and venous ulcers by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c);
i. stating deep vein thrombosis and pulmonary embolism preventive measures and hospital protocols (1a, 1b, 1c, 2a, 2c).

7. Explain nursing management of patients with selected hematological disorders including: iron and aplastic anemia, polycythemia, and blood administration by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c);
i. defining hospital acquired conditions (HAC) as related to blood incompatibility dangers for each disorder (1a, 1b, 1c, 2a, 2c).

8. Explain nursing management of patients with diabetes mellitus by

a. describing risk factors (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
h. explaining complications (1a, 1b, 1c, 2a, 2c);
i. discussing hospital acquired conditions that relate to issues causing poor glycemic control (1a, 1b, 1c, 2a, 2c).

9. Explain nursing management of patients with acid-base disorders by

a. describing risk factors (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative, (inter-professional) care including medical, pharmacological, nutritional, laboratory, radiology, and other specific services (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
h. explaining complications (1a, 1b, 1c, 2a, 2c).

10. Explain nursing management of patients with selected disorders of the respiratory system including: rhinitis, influenza, sinusitis, acute bronchitis, pneumonia, tuberculosis, emphysema, chronic bronchitis, bronchiectasis, asthma, pleurisy, atelectasis, and environmental lung disease by

a. describing risk factors for each disease process (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disease process (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disease process (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses for each disease process (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions for each disease process (1a, 1b, 1c, 2a, 2c);
h. explaining complications for each disease process (1a, 1b, 1c, 2a, 2c).

11. Explain nursing management of patients with selected disorders of the musculoskeletal system including: gout, osteoporosis, carpal tunnel syndrome, fractures, amputations, joint problems, arthritis, back pain, and thermal injuries by

a. describing risk factors for each disease process (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
h. explaining complications (1a, 1b, 1c, 2a, 2c).

12. Explain nursing management of patients with selected disorders of the neurological system including: the unconscious patient, increased intracranial pressure, cerebrovascular accident, headaches, and tetanus by

a. describing risk factors for each disease process (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disease process (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disease process (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses for each disease process (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions for each disease process (1a, 1b, 1c, 2a, 2c);
h. explaining complications for each disease process (1a, 1b, 1c, 2a, 2c).

13. Explain nursing care of patients with disorders of the sensory system including: glaucoma, cataracts, retinal detachment, eye trauma, ear trauma, ear foreign bodies, otosclerosis, Meniere's disease, and acoustic neuroma by

a. describing risk factors for each disease process (1a, 1b, 1c, 2a, 2c);
b. describing pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
c. relating clinical manifestations to pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disease process (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disease process (1a, 1b, 1c, 2a, 2c);
f. identifying nursing diagnoses for each disease process (1a, 1b, 1c, 2a, 2c);
g. identifying nursing interventions for each disease process (1a, 1b, 1c, 2a, 2c);
h. explaining complications for each disease process (1a, 1b, 1c, 2a, 2c).

14. Explain nursing management of patients with disorders of the gastrointestinal system including: nausea and vomiting, esophageal achalasia, gastric esophageal reflux disease, hiatal hernia, esophageal varices, appendicitis, polyps, peptic ulcers, gastritis, pernicious anemia, diarrhea, constipation, gastroenteritis, diverticulosis, hernias, bowel obstruction, ostomies, Crohn's, ulcerative colitis, hemorrhoids, nutritional disorders, and obesity by

c. relating clinical manifestations to pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);
d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disease process (1a, 1b, 1c, 2a, 2c);
e. explaining nursing care for each disease process (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disease process (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disease process (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disease process (1a, 1b, 1c, 2a, 2c).

15. Explain nursing care of patients with disorders of the genitourinary system including: urinary tract infection, urinary tract calculi, urinary incontinence, urinary retention, urinary catheters, urinary diversion, and benign prostatic hyperplasia by

a. describing risk factors for each disease process (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disease process (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disease process (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disease process (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disease process (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disease process (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disease process (1a, 1b, 1c, 2a, 2c).

16. Explain nursing care of patients with hypersensitive reactions and anaphylactic shock by

a. describing risk factors (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c).

17. Explain nursing care of patients during a bioterrorism attack by

a. describing risk factors (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative (inter-professional) care including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);

h. explaining complications (1a, 1b, 1c, 2a, 2c).

18. Explain nursing care of patients with cancer by

a. describing the processes involved in the biology of cancer (1a, 1b, 1c, 2a, 2c);

b. describing the role of the immune system related to cancer (1a, 1b, 1c, 2a, 2c);

c. discussing the role of the nurse in the prevention, detection, and diagnosis of cancer (1a, 1b, 1c, 2a, 2c).

RNSG 1443 - Complex Concepts of Adult Health

General

Course Key
15231

Course Rubric
RNSG

Course Number
1443

Course Title
Complex Concepts of Adult Health

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) Integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession in the care of adult patients and families with complex medical-surgical health care needs associated with body systems. Emphasis on complex knowledge, judgments, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Recommended Prerequisite: RNSG-1441 Required Prerequisite(s): RNSG 2213, RNSG 2163, RNSG 2208, RNSG 2260, RNSG 2201, RNSG-2161 or Administrative Approval Required Corequisites: RNSG-2461 (If it is the second attempt at passing this course, then the co-requisite may be waived)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take RNSG-2213(4578) RNSG-2263(13632) RNSG-2208(13628) RNSG-2260(8420) RNSG-2201(13627) RNSG-2261(13631); # Take RNSG-2213(4578) RNSG-2163 RNSG-2208(13628) RNSG-2260(8420) RNSG-2201(13627) RNSG-2161(14712); # Take RNSG-2213(4578) RNSG-2163 RNSG-2208(13628) RSNG-2260(8420) RNSG-2201(13627) RNSG-2261(13621) # Take RNSG-2213(4578) RNSG-2263(13632) RNSG-2208(13628) RSNG-2260(8420) RNSG-2201(13627) RNSG-2161(14712)
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-2461;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take rnsg-1441
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1413, RNSG 1360, and RNSG 1105
Required Corequisite(s): RNSG 1461

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Integrate the roles of the professional nurse in the provision of care of adult patients and families; utilize clinical reasoning processes and clinical judgment in providing care for adult patients and families with complex health care needs.

The seven course concepts and outcomes include:

- Safety: Demonstrate the knowledge, skills, and attitudes that ensure culture of safety in practice.
- Professionalism: Demonstrate the attitudes and values of the nursing profession.
- Caring Approach: Provide patient care that is respectful of and responsive to individual patient preferences, needs, and values.
- Teaching: Implement teaching/learning principles to meet the needs of patients and families with complex health needs.
- Clinical Reasoning: Independently utilize clinical reasoning skills when providing care for patients with complex health needs.
- Communication: Initiate and facilitate effective communication with patients, families, and members of the interdisciplinary health care team.
- Collaboration: Collaborate with interdisciplinary teams to manage patients, families, and/or communities to achieve quality patient outcomes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Evaluate and analyze medications affecting the cardiovascular system, including: cardiac glycosides (digoxin), phosphodiesterase inhibitors, antidysrhythmic agents (sodium channel blockers, beta blockers, potassium channel blockers, and calcium channel blockers), vasoactive drugs, and anti-anginals (nitrates) by
    a. analyzing the mechanisms of action for each medication (1a, 1b, 1c, 2a, 2c);
    b. evaluating the effectiveness for each medication (1a, 1b, 1c, 2a, 2c);
    c. identifying nursing considerations for each medication (1a, 1b, 1c, 2a, 2c);
    d. explaining possible side effects/complications for each medication (1a, 1b, 1c, 2a, 2c).
2. Analyze nursing management of patients with structural and inflammatory disorders of the heart, including: aortic dissection, aortic aneurysm, cardiomyopathy, valve disorders, and inflammatory diseases by
    a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).
3. Analyze electrocardiographic dysrhythmias, including: junctional dysrhythmias, heart blocks, premature ventricular contractions, ventricular tachycardia, and ventricular fibrillation by
    a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).
4. Analyze nursing management of a patient with myocardial revascularization, including: various types of coronary artery bypass grafting (CABG) by
    a. describing risk factors for each intervention (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each intervention (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each intervention (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each intervention (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each intervention (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each intervention (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each intervention (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each intervention (1a, 1b, 1c, 2a, 2c).
5. Analyze nursing management of patients with shock pathologies, including: types of shock, systemic inflammatory response syndrome (SIRS), multiple organ dysfunction syndrome (MODS), and disseminated intravascular coagulation (DIC) by
    a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).
6. Explain and analyze aspects of hemodynamic monitoring by
    a. describing risk factors (1a, 1b, 1c, 2a, 2c);
    b. explaining collaborative care (1a, 1b, 1c, 2a, 2c);
    c. explaining nursing care (1a, 1b, 1c, 2a, 2c);
    d. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
    e. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
    f. explaining complications (1a, 1b, 1c, 2a, 2c).
7. Analyze the nursing management of patients with selected disorders of the renal system, including: chronic renal failure, acute renal failure, and end stage renal failure by
    a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services (such as: hemodialysis, renal transplant) for each disorder (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).
8. Analyze nursing management of patients with endocrine disorders, including: disorders of the pituitary, thyroid, parathyroid, and adrenal glands by
    a. describing risk factors for each disorder for each disorder (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).
9. Analyze nursing care of patients with spinal cord disorders and injuries by
    a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).
10. Analyze nursing care of patients with shock, including neurogenic shock, by
    a. describing risk factors (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
    h. explaining complications (1a, 1b, 1c, 2a, 2c).
11. Analyze nursing care of patients with head trauma and chest trauma by
    a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);
    h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).
12. Analyze nursing care of patients with seizure disorders by
    a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

13. Analyze nursing management of patients requiring ventilator support by

a. describing risk factors (1a, 1b, 1c, 2a, 2c);

b. explaining collaborative care (1a, 1b, 1c, 2a, 2c);

c. explaining nursing care (1a, 1b, 1c, 2a, 2c);

d. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);

e. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);

f. explaining complications (1a, 1b, 1c, 2a, 2c).

14. Analyze nursing management of patients with pulmonary disorders, including: acute respiratory distress syndrome (ARDS) and pulmonary emboli (PE) by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

15. Analyze nursing management of patients with gastrointestinal disorders, including liver, gallbladder, and pancreatic disorders by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

16. Analyze nursing management of cancer patients including: head/brain, neck, lung, female, male, gastrointestinal, and renal cancers by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

17. Analyze nursing management of hematological complications (anemia, thrombocytopenia, and neutropenia), including: obstructive, metabolic, and infiltrative problems by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

18. Analyze nursing management of patients with hematological cancer, including: leukemia, Hodgkin's, Non-Hodgkin's, and multiple myeloma by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

19. Analyze nursing management of end-of-life issues by

a. describing physical and psychological aspects at the end of life (1a, 1b, 1c, 2a, 2c);

b. describing palliative care and hospice (1a, 1b, 1c, 2a, 2c);

c. discussing nursing care of dying persons and their families (1a, 1b, 1c, 2a, 2c);

d. outlining support for nurses caring for the dying (1a, 1b, 1c, 2a, 2c).

20. Analyze nursing management of patients with autoimmune/degenerative disorders, including: Guillain-Barre, Parkinson's disease, myasthenia gravis, multiple sclerosis, and system lupus erythematous by

a. describing risk factors for each disorder (1a, 1b, 1c, 2a, 2c);

b. describing pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

c. relating clinical manifestations to pathophysiology for each disorder (1a, 1b, 1c, 2a, 2c);

d. explaining collaborative care (inter-professional) including medical, surgical, pharmacological, nutritional, laboratory, radiology, rehabilitative, and other specific services for each disorder (1a, 1b, 1c, 2a, 2c);

e. explaining nursing care for each disorder (1a, 1b, 1c, 2a, 2c);

f. identifying nursing diagnoses for each disorder (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions for each disorder (1a, 1b, 1c, 2a, 2c);

h. explaining complications for each disorder (1a, 1b, 1c, 2a, 2c).

21. Analyze the Nurse Practice Act by

a. describing the significance of the Texas Nurse Practice Act (1a, 1b, 1c, 2a, 2c);

b. identifying the role of the Board of Nurse Examiners in regulating practice (1a, 1b, 1c, 2a, 2c);

c. identifying standards of professional nursing practice and unprofessional conduct (1a, 1b, 1c, 2a, 2c);

d. applying delegation rules to specific complex patient situations (1a, 1b, 1c, 2a, 2c).

22. Analyze nursing peer review and safe harbor peer review for the professional by

a. discussing the role of the nurse in safeguarding the public from harm (1a, 1b, 1c, 2a, 2c);

b. discussing the implications of peer review (1a, 1b, 1c, 2a, 2c);

c. discussing the rationale for declaring peer review safe harbor (1a, 1b, 1c, 2a, 2c).

RNSG 1461 - Clinical Registered Nursing/Nurse

General

Course Key
13626

Course Rubric	Course Number	Course Title
RNSG	1461	Clinical - Registered Nursing/Registered Nurse

Semester Credit Hours	Lecture Hours	Lab Hours
4	0	12

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-12) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Required Prerequisites: RNSG-1413 RNSG-1360 and RNSG-1105 Required Corequisites: RNSG-1441 (If it is the second attempt at passing this course, then the co-requisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE RNSG-1413 RNSG-1360 RNSG-1105;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-1441
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RNSG 1441
Required Prerequisite(s): RNSG 2213, RNSG 2163, RNSG 2208, RNSG 2260, RNSG 2201, RNSG 2161 or Administrative Approval
Required Corequisite(s): RNSG 2461

Course Learning Outcomes

Course Learning Outcomes
The student is expected to apply knowledge and skills acquired in all previous courses. An asterisk (*) designates a Crucial Outcome. All Crucial Outcomes must be completed at an assisted level or higher in order to pass RNSG-1461. Performance will be satisfactory if demonstration, utilization, establishment, identification, formulation, implementation, application, or evaluation reflects linked student learning objectives and is consistent with required texts.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule. Upon successful completion of this course, students will:

1. *Demonstrate safe practice in the provision of care to patients and families by
    a. implementing measures to promote a safe environment for patients and others (1a, 1b, 2e);
    b. identifying patients accurately (1a, 1b, 2e);
    c. performing nursing procedures and skills correctly (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. implementing and maintaining measures to prevent exposure to infectious pathogens and communicable conditions (1a, 1b, 2a, 2c, 2d);
    e. maintaining and monitoring for the chemical safety of the patient (1a, 1b, 2a, 2c, 2d);
    f. maintaining and monitoring for the thermal safety of the patient (1a, 1b, 2a, 2e);
    g. assuring the psychological safety of the patient by using stress control methods and therapeutic communication (1a, 1b, 1c, 2b);
    h. advocating for the patient/family (1a, 1b, 1c, 2a, 2b, 2c);
    i. implementing patient care according to legal, ethical, state, and national standards (1a, 1b, 1c, 2b, 2c, 2e);
    j. managing required patient care load (1a, 1b, 1c);
    k. recognizing appropriate nursing interventions to stabilize a patient's condition and/or prevent complications (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    l. recognizing inaccurate or contraindicated orders (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    m. locating the Texas Board of Nursing (BON) references related to safety (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f);
    n. naming the Texas BON rules concerning medication administration and outlining the nursing process as defined by the BON (1a, 1b, 1d, 1e, 2a, 2c, 2e, 2f).

2. Demonstrate the attitudes and values of the nursing profession by
    a. referencing and conforming to the Texas Nursing Practice Act (1a, 1b, 1c, 2b, 2c, 2e);
    b. *adhering to policies and procedures of Tarrant County College, the Nursing Department, the course, and the clinical facility (1a, 1b, 1c, 2b, 2c, 2e);
    c. *demonstrating personal and professional responsibility and accountability (1a, 1b, 1c, 2b);
    d. acting independently as appropriate (1a, 1b, 1c, 2b);
    e. *recognizing and accepting ethical and legal responsibility for actions (1a, 1b, 2a, 2c);
    f. *demonstrating behaviors and attitudes indicating honesty, accountability, trustworthiness, reliability, and integrity (1a, 1b, 1c, 2b);
    g. recognizing personal strengths and limitations (1a, 1b, 1c, 2b);
    h. selecting learning experiences that enhance competency and promote professional and personal development (1a, 1b, 1c, 2b);
    i. maintaining patient confidentiality and professional boundaries (1a, 1b, 1c, 2b);
    j. comparing evidence-based clinical practice (1a, 1b, 1c, 2b, 2c, 2e);
    k. organizing and completing assigned tasks in appropriate time (1a, 1b, 1c, 2b);
    l. providing total patient care (1a, 1b, 1c, 2b);
    m. seeking and participating actively in self-directed learning experiences (1a, 1b, 1c, 2b, 2c, 2e).

3. The student will discuss the impact of accrediting bodies on healthcare facilities by
    a. describing OSHA (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f);
    b. describing CMS (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f);
    c. describing IHI (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f);
    d. describing AHA (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f);
    e. describing TJC, including the National Patient Safety Goals and how facilities comply (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f);
    f. discussing mandates from the accrediting bodies (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f).

4. Demonstrate caring behaviors toward self and others by
    a. demonstrating acceptance and consideration of the physical, emotional, social, spiritual, and cultural needs of the patient and others to achieve desired patient outcomes (1a, 1b, 1c, 2b);
    b. interacting with patients and others to build respect and trust (1a, 1b, 1c, 2b);
    c. demonstrating caring behaviors using comfort, compassion, concern, empathy, nurturing, touch, and support in assisting patient in coping process (1a, 1b, 1c, 2b);
    d. assisting the patient to achieve optimum comfort and functioning (1a, 1b, 1c, 2b).

5. Apply teaching/learning principles to meet the needs of adult patients and families by
    a. identifying learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration (1a, 1b, 1c, 2b);
    b. assessing learning needs and readiness of patients and families (1a, 1b, 1c, 2b);
    c. developing, implementing, and evaluating teaching plans to meet the needs of patients and families (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. seeking opportunities actively to teach patients and families (1a, 1b, 1c, 2b);
    e. identifying teaching resources, including best practice standards and other evidence-based findings (1a, 1b, 1c, 2b);
    f. individualizing and implementing teaching plans (1a, 1b, 1c, 2b);
    g. identifying appropriate teaching methods (1a, 1b, 1c, 2b);
    h. documenting teaching interventions, patient, and family responses (1a, 1c);
    i. evaluating teaching goals and revising plan as needed (1a, 1b, 1c, 2b).

6. Demonstrate clinical reasoning skills when providing care for the adult with common health needs by
    a. utilizing the nursing process to provide individualized, goal-directed, evidence-based practice nursing care (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. performing and documenting comprehensive nursing assessments (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. determining nursing diagnoses that serve as the basis for care (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. developing a plan of care based on the assessment and nursing diagnoses (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. implementing nursing care (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. evaluating the patient's responses to nursing interventions (1a, 1b);
    g. modifying plan of care as needed (1a, 1b);
    h. demonstrating appropriate delegation skills (1a, 1b);
    i. naming the Texas Board of Nursing rules related to delegation (1a, 1b, 1d, 1e, 2a, 2b, 2c, 2e, 2f).

7. Apply principles of communication when interacting with patients, families, and members of the interdisciplinary healthcare team by
    a. demonstrating verbal and nonverbal communication skills that are relevant, accurate, complete, timely, clear, understandable, and therapeutic (1a, 1c, 2b);
    b. demonstrating written communication skills that are relevant, accurate, complete, timely, legible, and meaningful (1a, 1b, 2c, 2d, 2e);
    c. demonstrating active listening, genuineness, observation skills, physical attentiveness, and interviewing skills (1a, 1b, 1c,

2b);

d. recognizing and maintaining professional boundaries of the nurse/patient relationship (1a, 1b, 1c, 2b);

e. reporting and documenting accurately and completely patient status, nursing care provided, administration of medications and treatments, patient responses, and contact with health care team members concerning significant events (1a, 1b, 2b, 2c, 2d, 2e);

f. demonstrating spontaneous, non-defensive behaviors (1a, 1b, 1c, 2b).

8. Collaborate with interdisciplinary teams to coordinate care of adult families with common health needs by

a. describing the roles of interdisciplinary team members (1a, 1b, 1c, 2b);

b. functioning as a member of an interdisciplinary team (1a, 1b, 1c, 2b);

c. collaborating with the patient, health care team, and patient's family to coordinate care (1a, 1b, 1c, 2b);

d. collaborating with interdisciplinary teams to make referrals to appropriate community agencies and health care resources to provide continuity of care (1a, 1b, 1c, 2b, 2c).

RNSG 2161 - Clinical Registered Nursing/Reg Nurse

General

Course Key
14712

Course Rubric	Course Number	Course Title
RNSG	2161	Clinical - Registered Nursing/Registered Nurse

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of major concepts. Required Prerequisites: RNSG-1441, RNSG-1461, RNSG-2213, RNSG-2163, PSYC-2314 or Administrative Approval. Required Corequisites: RNSG-2201 (If it is the second attempt at passing this course, then the co-requisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group: # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2163 PSYC-2314(8098); # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2263 PSYC-2314(8098);
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course decription for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-2201
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1413 RNSG 1360 and RNSG 1105
Required Corequisite(s): RNSG 1441

Course Learning Outcomes

Course Learning Outcomes
The student is expected to apply knowledge and skills acquired in all previous courses. Outcomes with a right-pointing triangle (►) are critical objectives and must be met with an Assisted (A) or higher score. ALL Crucial Outcomes must be completed at an Assisted (A) level or higher in order to pass RNSG 2161. Performance will be satisfactory if demonstration, utilization, establishment, identification, formulation, implementation, application, or evaluation reflects linked student learning objectives and is consistent with required texts.

1. The student will demonstrate the attitudes and values of the nursing profession. The student will be able to

a. Interact with patients, nursing faculty, and healthcare team in a professional manner (1a, 1b, 1c, 2b).

b. ►Demonstrate personal and professional responsibility and accountability (1a, 1b, 1c, 2b).

c. ►Adhere to policies and procedures of Tarrant County College, the Nursing Department, the course, the clinical facility, and the Texas Nurse Practice Act (1a, 1b, 1c, 2b, 2c, 2e).

d. ►Demonstrate professional behavior, appearance, and attitude (1a, 1b, 1c, 2b).

e. ►Demonstrate ethical-legal accountability for actions (1a, 1b, 1c, 2b).

f. Demonstrate preparedness for clinical (paperwork) (1a, 1b, 1c, 2c).

g. Select learning experiences that enhance competency; promote professional and personal development (1a, 1b, 1c, 2b).

h. Organize and complete assigned tasks in appropriate time and perform total patient care (1a, 1b, 1c, 2b).

i. Utilize evidence-based clinical practice (1a, 1b, 1c, 2b, 2c, 2e).

j. Actively seek and participate in self-directed learning experiences (1a, 1b, 1c, 2b, 2c, 2e).

2. ►The student will demonstrate the knowledge, skills, and attitudes to ensure a culture of safety in the practice of caring for children. The student will be able to

a. ►Implement measures to promote a safe environment for patients and others.

i. Identify patients accurately (1a, 1b, 2e).

ii. Correctly perform nursing procedures and skills (1a, 1b, 1c, 2a, 2b, 2c, 2e).

b. ►Implement and maintain measures to prevent exposure to infectious pathogens and communicable conditions (1a, 1b, 2a, 2c, 2d).

c. ►Maintain and monitor for the chemical safety of the patient.

i. State the rationale for the effects of medications and treatments (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

ii. Adapt medication knowledge (calculate patient's safe dose range, calculate correct dose, calculate and analyze

fluid requirements) (1a, 1b, 1c, 2a, 2c, 2e).

d. Maintain and monitor for the thermal safety of the patient (1a, 1b, 2a, 2e).

e. Assure the psychological safety of the patient by using therapeutic communication (1a, 1b, 1c, 2b).

f. Advocate for patient/family (1a, 1b, 1c, 2a, 2b, 2c).

g. Implement patient care according to legal and ethical, state and national standards (1a, 1b, 1c, 2b, 2c, 2e).

3. The student will initiate effective communication with children, caregivers, and members of the interdisciplinary health care team. The student will be able to

a. Demonstrate verbal and nonverbal communication skills that are relevant, accurate, complete, timely, clear, understandable, and therapeutic.

i. Apply principles of communicating with children (1a, 1b, 1c, 2b).

b. Demonstrate written (electronic healthcare record [EHR] where available) communication skills that are relevant, accurate, complete, timely, legible, and meaningful (1a, 1b, 2c, 2d, 2e).

c. Demonstrate active listening genuineness, observation skills, physical attentiveness, and interviewing skills (1a, 1b, 1c, 2b).

d. Communicate learning needs to staff and instructors (1a, 1c, 2b).

4. The student will provide patient care that is respectful of and responsive to children and caregivers. The student will be able to

a. Demonstrate acceptance and consideration of the physical, emotional, social, spiritual, and cultural needs of the patient and others to achieve desired patient outcomes (1a, 1b, 1c, 2b).

b. Demonstrate caring behaviors using comfort, compassion, concern, empathy, nurturing, touch, and support in assisting the patient in the coping process (1a, 1b, 1c, 2b).

c. Deliver care in a non-judgmental and non-discriminating manner (1a, 1b, 1c, 2b).

5. The student will apply teaching/learning principles to meet the needs of patients and their families. The student will be able to

a. Assess learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration (1a, 1b, 1c, 2b).

b. Collaborate with patient and interdisciplinary health care team to develop individual teaching plans based upon patient/family learning style and needs.

i. Use best practice standards and other evidence-based findings in developing teaching plans for patients/families (1a, 1b, 1c, 2b).

c. Develop and implement individualized patient and family teaching.

i. Demonstrate discharge teaching as available (with licensed personnel); include signs and symptoms of when to notify physician after discharge (1a, 1b, 1c, 2a, 2b, 2c, 2e).

d. Apply Erickson and Piaget stages of development; identify and implement individualized anticipatory guidance needs (1a, 1b).

e. Document teaching interventions, patient and family response (1a, 1c).

f. Evaluate teaching goals; revise plan as needed (1a, 1b, 2b, 2c).

6. The student will utilize clinical reasoning skills when providing care for children and caregivers. The student will be able to

a. Perform comprehensive assessment of patients and families.

i. Use data collection tools to obtain patient and family history (1a, 1b, 1c, 2a, 2b, 2c, 2e).

ii. Identify psychosocial, cultural, spiritual, environmental, and developmental needs (1a, 2b, 2c).

iii. Monitor changes in health status of patients and families (1a, 1b, 1c, 2b, 2c, 2e).

iv. Document comprehensive assessment data (1a, 1b, 2c, 2e).

b. Prioritize patient needs through plan of care.

i. Formulate plan of care showing cause/effect relationship and patient interventions based on evidence-based practice (1a, 1b, 2a, 2b, 2c, 2e).

ii. Incorporate Maslow's hierarchy (1a, 1b).

iii. Re-evaluate plan of care based on patient's response (1a, 1b).

c. Apply theory (lecture) information in practice settings (1a, 1b, 2c).

7. The student will collaborate with interdisciplinary teams to coordinate care of children, caregivers, and/or communities to achieve quality patient outcomes.

a. Collaborate with the patient, family, and interdisciplinary team to coordinate care (1a, 1b, 1c, 2b).

b. Collaborate with interdisciplinary team to make referrals to appropriate community agencies and health care resources to provide continuity of care (1a, 1b, 1c, 2b, 2c).

RNSG 2163 - Clinical-Registered Nursing/Reg Nurse

General

Course Key
14717

Course Rubric	Course Number	Course Title
RNSG	2163	Clinical - Registered Nursing/Registered Nurse

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Required Prerequisites: RNSG-1413, RNSG-1360, RNSG-1105, and PSYC-2301 or Administrative Approval Required Corequisites: RNSG-2213 (If it is the second attempt at passing this course, then the co-requisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE RNSG-1413 RNSG-1360 RNSG-1105 PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-2213
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1441, RNSG 1461, RNSG 2213, RNSG 2163, PSYC 2314 or Administrative Approval
Required Corequisite(s): RNSG 2201

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

COURSE OUTCOMES

Upon successful completion of this course, the student will:

1. Demonstrate safety in displaying knowledge, skills, and attitudes that ensure a culture of safety within the psychiatric/mental health environment by

- implementing measures to promote a safe environment for patients and others (1a, 1b, 1c, 2c and 2e)
- identifying patients accurately (1a, 1b, 1c, 2c and 2e)
- performing nursing procedures and skills correctly (1a, 1b, 1c, 2c and 2e)
- implementing and maintaining measures to prevent exposure to infectious pathogens (1a, 1b, 1c, 2c and 2e)
- maintaining and monitoring for the chemical safety of the patient (1a, 1b, 1c, 2a-e)
- stating the rationale for and the effects of medications and treatments (1a, 1b, 1c, 2a-e)
- maintaining and monitoring for the thermal safety of the patient (1a, 1b, 1c, 2b & e)
- assuring the psychological safety of the patient by using stress control methods and therapeutic communication (1a, 1b, 1c, and 2a-e)
- advocating for patient/family (1a-c, 2a–e)
- implementing patient care according to legal, ethical, state, and national standards (1a-c, 2a–e)
- demonstrating therapeutic interaction with psychiatric/mental health patients and the interdisciplinary team (1a-c, 2a–e)

2. Demonstrate professionalism in displaying the attitudes and values of the nursing profession by

- demonstrating responsibility and accountability for personal and professional beliefs (1b, 1c, 2b, 2d and 2e)
- adhering to policies and procedures of TCC, the Nursing Department, the course, the clinical facility, and the Texas Nurse Practice Act (1a-c, 2a–e)
- following faculty instructions (1a, 1b, 2b and 2e)
- demonstrating professional behaviors, appearance, and attitude (1a-c, 2a–e)
- interacting with patients, nursing faculty, and the healthcare team in a professional manner (1a-c, 2a–e)
- complying with the professional, ethical, and legal standards of nursing (1a-c, 2a–e)

- maintaining patient confidentiality and professional boundaries (1a-c, 2a–e)
- demonstrating evidence based clinical practice (1a-c, 2a–e)
- demonstrating behaviors and attitudes indicating honesty, accountability, trustworthiness, reliability, and integrity (1a-c, 2b)

3. Demonstrate a caring approach in providing genuine and empathetic care with positive regard for self and others by
    - demonstrating caring behaviors in nursing process development and implementation (1a-c, 2a-e)
    - participating in interventions that reflect caring behaviors (1a-c, 2a and 2b)
    - providing culturally sensitive healthcare to patients and their families (1a-c, 2a-e)
    - providing safe, compassionate, comprehensive nursing care to patients and their families (1a-c, 2a-e)
    - facilitating wellness, coping mechanisms, and relapse prevention behaviors (1a-c, 2a-e)
    - assisting the patient to achieve optimum comfort and functioning (1a-c, 2a-e)
    - observing and identifying group process (1a-c, 2a-e)
    - demonstrating respect and acceptance of others (1c, 2b and 2d)
    - delivering care in a non-judgmental and non-discriminating manner
    - implementing holistic care (1c, 2b and 2d)
    - protecting patients' autonomy, dignity, and rights (1c, 2b and 2d)

4. Demonstrate teaching in using teaching/learning principles to meet the needs of the mental health patients and their families by
    - identifying learning needs of the patients and families related to risk reduction and health promotion, maintenance, and restoration (1c, 2b and 2d)
    - collaborating with patient and interdisciplinary healthcare team to develop teaching plans based upon patient/family learning styles and needs (1a-c, 2a-e)
    - using best practice standards and other evidence based findings in developing teaching plans for patients/families (1a-c, 2a-e)
    - assessing learning needs and readiness of patients/families (1a-c, 2a-e)
    - identifying appropriate teaching methods (1a-c, 2a-e)
    - documenting teaching interventions and patient/family responses (1a-c, 2a-e)
    - educating the patient and family about therapeutic level(s) and effects, possible side effects, and onset and duration of medication(s) (1a-c, 2a-e)
    - recognizing patient learning needs related to defense mechanisms and coping skills (1a-c, 2a-e)

5. Demonstrate clinical reasoning in recognizing maladaptive behaviors and utilize clinical reasoning skills when providing care for patients with mental health needs and their families by
    - applying clinical reasoning and nursing science as a basis for decision making in nursing practice (1a-c, 2a-e)
    - applying the systemic problem solving process to develop a comprehensive plan of care for patient with mental health care needs (1a-c, 2a-e)
    - performing and documenting assessments using a systematic approach (1a-c, 2a-e)
    - using data collection tools to obtain patient and family history (1a-c, 2a-e)
    - identifying psychosocial, cultural, spiritual, environmental, occupational, and developmental needs prioritizing and implementing components of the nursing process utilizing a holistic approach (1a-c, 2a-e)
    - evaluating the achievement of patient outcomes (1a-c, 2a-e)
    - modifying the plan of care as needed (1a-c, 2a-e)

6. Demonstrate effective and therapeutic communication with mental health patients, their families, and members of the interdisciplinary health care team by
    - demonstrating therapeutic relationships and therapeutic interactions with patients, families, and members of the health care team (1a-c, 2a-e)
    - observing verbal and nonverbal messages (1a-c, 2a-e)
    - seeking to clarify information (1a-c, 2a-e)
    - demonstrating congruency in thoughts, words, feelings, and body language (1a-c, 2a-e)
    - demonstrating verbal and nonverbal communication skills that are relevant, accurate, complete, timely, clear, understandable, and therapeutic (1a-c, 2a-e)
    - demonstrating written communications skills that are relevant, accurate, complete, timely, legible, and meaningful (1a-c, 2a-e)
    - demonstrating spontaneous and non-defensive behaviors (1a-c, 2a-e)
    - demonstrating active listening, genuineness, observational skills, physical attentiveness, and effective interviewing skills (1a, 1c and 2b)
    - maintaining eye contact when culturally appropriate (1a, 1c and 2b)
    - maintaining an open posture and leaning toward the patient when appropriate (1a, 1c and 2b)
    - reporting and documenting accurately and completely the patient's status including the diagnosis, nursing care provided, effects of medications and therapies including patient's responses, and interactions with the health care team (1a-c, 2a-e)
    - maintaining open communication (1a-c, 2a-e)
    - recognizing and maintaining professional boundaries of the nurse/patient relationship (1a-c, 2a-e)

7. Collaborate with the interdisciplinary team to implement the treatment plan of the mental health patients by
    - interacting with patients, nursing faculty, practicing nurses, and student nurses' colleagues in a professional manner (1a-c, 2a-e)
    - functioning as a member of the interdisciplinary (1a-c, 2a-e) team
    - working effectively in collaborative assignments (1a-c, 2a-e)
    - collaborating with the patient, the patient's family, and mental health team to coordinate the patient's care (1a-c, 2a-e)
    - collaborating with the interdisciplinary team to make referral to appropriate community agencies and mental health care resources to provide continuity of care (1a-c, 2a-e)
    - referencing and conforming to delegation rules of the Texas Nursing Practice Act (1a-c, 2a-e)
    - following chain of command (1a-c, 2a-e)

RNSG 2201 - Care of Children and Families

General

Course Key
14950

Course Rubric	Course Number	Course Title
RNSG	2201	Care of Children and Families

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0)Study of concepts related to the provision of nursing care for children and their families, emphasizing judgment and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of major concepts. Required Prerequisite(s): RNSG 1441, RNSG 1461, RNSG 2213, RNSG 2163, PSYC 2314, or Administrative Approval Required Corequisite(s): RNSG 2161 (if it is the second attempt at passing this course, then the co-requisite may be waived)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2163 PSYC-2314(8098); # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2263 PSYC-2314(8098);
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-2161;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1413, RNSG 1360, RNSG 1105, and PSYC 2301 or Administrative Approval
Required Corequisite(s): RNSG 2213

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the roles of the professional nurse in caring for children and families; utilize clinical reasoning processes and clinical judgment for providing care for the child and the family; apply ethical and legal principles to the care of the child and the family.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the care of the hospitalized child by
    a. describing potential roles for a pediatric nurse in a variety of pediatric settings (1b, 2b, 2c);
    b. identifying principles the nurse may use in communicating and interviewing the child and their family (1a, 2b, 2c);
    c. identifying techniques used when communicating with children (1a, 2b, 2c);
    d. describing adaptation of nursing principles of CPR, medication administration, dosage calculation, and infection control (1a, 1b, 2b, 2c);
    e. identifying the stressors of illness in relation to each of the developmental stages (1b, 2b, 2c);
    f. developing nursing interventions to prevent or reduce stress (1b, 2b, 2c);
    g. applying the nursing process (1b, 2b, 2c);
    h. applying Maslow's theory to the care of children (1b, 2b, 2c);
    i. recalling teaching/learning principles (1b, 2b, 2c);
    j. formulating teaching specific to the level of development (1b, 2b, 2c);
    k. formulating discharge teaching needs (1b, 2b, 2c).
2. Modify physical assessment of the pediatric patient by
    a. differentiating pediatric differences in various systems (1b, 2c);
    b. identifying pertinent data and history collected by the nurse during admission (1a, 2b, 2e);
    c. applying an age-appropriate approach to the assessment process (1b, 2b, 2e);
    d. explaining the correct method of measuring and recording weight, height, and head circumference in infants and children (1a, 2b);
    e. explaining assessment of vital signs in children (1b, 2b, 2e);
    f. differentiating physical assessment of an infant and a child (1b, 2b, 2c);
    g. explaining some common abnormalities that may be assessed while examining an infant or child (1b, 2b, 2c);
    h. differentiating pain assessment in children (1b, 2b, 2c).
3. Apply growth and development concepts to the pediatric patient by
    a. recalling principles of growth and development for infant, toddler, preschool, school age, and adolescent (1b, 2c);
    b. identifying factors which influence growth and development (1b, 2c);
    c. identifying types and purpose of play (1b, 2c).
4. Demonstrate an understanding of childhood injury prevention issues by
    a. listing potential injurious situations by age group (1b, 2c);
    b. determining measures to promote safety (1b, 2c);
    c. identifying principles in emergency treatment of poisoning, including hydrocarbons, iron, corrosives, salicylates, acetaminophen, and lead poisoning (1b, 2c);
    d. developing nursing care for the child with poisoning (1b, 2c).
5. Demonstrate an understanding of pediatric cognitive and emotional impairment by
    a. describing general classification of cognitive impairment (1b, 2c);
    b. developing nursing care for a child with cognitive impairment (1b, 2c);
    c. identifying characteristics of autism (1b, 2c);
    d. developing nursing care for a child with autism (1b, 2c);
    e. identifying characteristics of Down Syndrome (1b, 2c);
    f. discussing genetic implications of Down Syndrome (1b, 2c);
    g. developing nursing care for a child with Down Syndrome (1b, 2c);
    h. describing factors involved with failure to thrive (1b, 2c);
    i. developing nursing care for a child with failure to thrive (1b, 2c);
    j. describing types of child abuse, including emotional neglect, emotional abuse, physical neglect, physical abuse, and sexual abuse (1b, 2c);
    k. explaining factors which precipitate abuse (1b, 2c);
    l. developing nursing care for an abused child (1b, 2c).
6. Summarize pediatric cardiac function and dysfunction by
    a. identifying cardiac structures and hemodynamics (1b, 2c);
    b. describing cardiac function in the child (1b, 2c);
    c. describing each type of heart defect, including ventricular septal defect (VSD), atrial septal defect (ASD), co-arctation of the aorta, patient ductus arteriosus (PDA), tetralogy of fallot (TOF), transposition of the great arteries (TGA), truncus arteriosus, and hypo-plastic left heart syndrome (HLHS) (1b, 2c);
    d. explaining hemodynamics for each heart defect, including VSD, ASD, coarctation of the aorta, PDA, TOF, TGA, truncus arteriosus, and HLHS (1b, 2c);
    e. describing multidisciplinary management (1b, 2c);
    f. describing diagnostic procedures (1b, 2c);
    g. determining medication used in congenital heart disease (1b, 2c);
    h. developing nursing care for a child with congestive heart failure, congenital heart defects, VSD, ASD, co-arctation, PDA, TOF, TGA, truncus arteriosus, HLHS, and cardiac catheterization (1b, 2c).
7. Demonstrate an understanding of respiratory alterations in the pediatric patient by
    a. describing respiratory differences in the infant and child (1b, 2c);
    b. listing conditions which can result from a respiratory alteration and/or dysfunction (1b, 2c);
    c. describing physiology for the listed condition, including upper respiratory tract infection (URI), lower respiratory tract infection (LRI), tonsillitis, otitis media (OM), acute otitis media (AOM), asthma/reactive airway disease (RAD), bronchopulmonary dysplasia (BPD), cystic fibrosis (CF), sudden infant death syndrome (SIDS), pneumonia, croup, epiglottitis, bronchiolitis/respiratory syncytial virus (RSV), and apnea of prematurity/infantile apnea (1b, 2c);
    d. describing clinical manifestation for the listed condition, including URI, LRI, tonsillitis, OM, AOM, asthma/RAD, BPD, CF, SIDS, pneumonia, croup, epiglottitis, bronchiolitis/RSV, and apnea of prematurity/infantile apnea (1b, 2c);
    e. determining medication used for the listed condition, including URI, LRI, tonsillitis, OM, AOM, asthma/RAD, BPD, CF, SIDS, pneumonia, croup, epiglottitis, bronchiolitis/RSV, and apnea of prematurity/infantile apnea (1b, 2c);
    f. discussing multidisciplinary management for each of the conditions, including URI, LRI, tonsillitis, OM, AOM, asthma/RAD, BPD, CF, SIDS, pneumonia, croup, epiglottitis, bronchiolitis/RSV, and apnea of prematurity/infantile apnea (1b, 2c);
    g. discussing genetic implications of cystic fibrosis (1b, 2c);
    h. developing nursing care for a child and his family who experiences an episode of URI, LRI, tonsillitis, OM, AOM, asthma/RAD, BPD, CF, SIDS, pneumonia, croup, epiglottitis, bronchiolitis/RSV, and apnea of prematurity/infantile apnea (1b, 2c).
8. Demonstrate an understanding of immune system alterations by
    a. explaining immune system function (1b, 2c);
    b. identifying special considerations in the pediatric patient (1b, 2c);
    c. determining medication used for immunologic alterations (1b, 2c);

d. developing nursing care for a child with Kawasaki Disease, rheumatic fever, and Steven-Johnson Syndrome (1b, 2c).

9. Demonstrate an understanding of prevention and treatment of communicable diseases by
    a. identifying types of immunity (1b, 2c);
    b. identifying needed immunizations for infants and children (1b, 2c);
    c. determining nursing measures related to immunizations (1b, 2c);
    d. describing communicable diseases (1b, 2c);
    e. describing control for each communicable disease, including mumps, measles/rubeola, chickenpox/varicella, rubella, pertussis, and fifth disease (1b, 2c);
    f. describing prevention of each communicable disease, including mumps, measles/rubeola, chickenpox/varicella, rubella, pertussis, and fifth disease (1b, 2c);
    g. developing a plan of care for a child and family with a communicable disease, including mumps, measles/rubeola, chickenpox/varicella, rubella, pertussis, and fifth disease (1b, 2c).

10. Demonstrate an understanding of pediatric oncology disorders by
    a. listing neoplastic disorders, including leukemia, neuroblastomas, Wilms tumor, and bone tumors (1b, 2c);
    b. describing the physiology in each condition, including leukemia, neuroblastomas, Wilms tumor, and bone tumors (1b, 2c);
    c. describing clinical manifestations for each condition, including leukemia, neuroblastomas, Wilms tumor, and bone tumors (1b, 2c);
    d. discussing overall use of medications for oncology patients (1b, 2c);
    e. describing multidisciplinary management for each condition, including leukemia, neuroblastomas, Wilms tumor, and bone tumors (1b, 2c);
    f. developing nursing care for a child with leukemia, neuroblastomas, Wilms tumor, and bone tumors (1b, 2c).

11. Demonstrate an understanding of pediatric hematological disorders by
    a. listing multidisciplinary conditions which cause hematological disorders (1b, 2c);
    b. describing the physiology in each condition, including sickle cell anemia and hemophilia (1b, 2c);
    c. describing clinical manifestations for each, including sickle cell anemia and hemophilia (1b, 2c);
    d. determining medication used for hematological disorders (1b, 2c);
    e. describing multidisciplinary management for sickle cell anemia and hemophilia (1b, 2c);
    f. discussing genetic implications of sickle cell anemia (1b, 2c);
    g. developing nursing care for a child with sickle cell anemia and hemophilia (1b, 2c).

12. Demonstrate an understanding of pediatric central nervous system (CNS) dysfunction by
    a. listing disorders which result in CNS dysfunction (1b, 2c);
    b. describing the physiology in each condition, including head injuries, submersion injury/near drowning, sepsis, bacterial meningitis, viral meningitis, seizures (including febrile), spina bifida, and hydrocephalis (1b, 2c);
    c. describing clinical manifestations for each condition, including head injuries, submersion injury/near drowning, sepsis, bacterial meningitis, viral meningitis, seizures (including febrile), spina bifida, and hydrocephalis (1b, 2c);
    d. determining medication used for selected conditions (1b, 2c);
    e. describing multidisciplinary management for each condition, including head injuries, submersion injury/near drowning, sepsis, bacterial meningitis, viral meningitis, seizures (including febrile), spina bifida, and hydrocephalis (1b, 2c);
    f. developing nursing care for a child with head injuries, submersion injury/near drowning, sepsis, bacterial meningitis, viral meningitis, seizures (including febrile), spina bifida, and hydrocephalis (1b, 2c).

13. Demonstrate an understanding of pediatric gastrointestinal alterations by
    a. describing the gastrointestinal tract in the infant and child (1b, 2c);
    b. listing conditions which can result from a gastrointestinal alteration and/or dysfunction (1b, 2c);
    c. describing the physiology for the listed conditions, including pyloric stenosis, celiac disease, intussusception, Hirschsprung Disease, gastroesophageal reflux (GER), cleft lip (CL), cleft palate (CP), esophageal atresia, tracheoesophageal fistula (TEF), biliary atresia, hernia, nutritional allergies, feeding problems, and colic (1b, 2c);
    d. describing clinical manifestations for each of the listed conditions, including pyloric stenosis, celiac disease, intussusception, Hirschsprung Disease, GER, CL, CP, esophageal atresia, TEF, biliary atresia, hernia, nutritional allergies, feeding problems, and colic (1b, 2c);
    e. determining medication used for each listed condition, including pyloric stenosis, celiac disease, intussusception, Hirschsprung Disease, GER, CL, CP, esophageal atresia, TEF, biliary atresia, hernia, nutritional allergies, feeding problems, and colic (1b, 2c);
    f. describing multidisciplinary management for each of the conditions, including pyloric stenosis, celiac disease, intussusception, Hirschsprung Disease, GER, CL, CP, esophageal atresia, TEF, biliary atresia, hernia, nutritional allergies, feeding problems, and colic (1b, 2c);
    g. developing nursing care for a child with pyloric stenosis, celiac disease, intussusception, Hirschsprung Disease, GER, CL, CP, esophageal atresia, TEF, biliary atresia, hernia, nutritional allergies, feeding problems, and colic (1b, 2c).

14. Demonstrate an understanding of fluid and electrolyte alterations in children by
    a. explaining fluid and electrolyte differences in children (1b, 2c);
    b. listing conditions which can result from a fluid and electrolyte alteration and/or dysfunction (1b, 2c);
    c. describing the physiology for the listed conditions, including dehydration and burns (1b, 2c);
    d. describing clinical manifestations for each of the conditions listed, including dehydration and burns (1b, 2c);
    e. determining medication used for selected conditions, including dehydration and burns (1b, 2c);
    f. describing multidisciplinary management for each of the conditions, including dehydration and burns (1b, 2c);
    g. developing nursing care for a child with dehydration and burns (1b, 2c).

15. Demonstrate an understanding of pediatric renal function by
    a. listing conditions which can result from a renal dysfunction (1b, 2c);
    b. describing the physiology for each condition, including vesicoureteral reflux (VUR), acute glomerulonephritis (AGN), nephrotic syndrome, hypospadias, and enuresis (1b, 2c);
    c. describing clinical manifestations for each of the conditions, including VUR, AGN, nephrotic syndrome, hypospadias, and enuresis (1b, 2c);
    d. determining medication used for selected conditions, including VUR, AGN, nephrotic syndrome, hypospadias, and enuresis (1b, 2c);
    e. discussing multidisciplinary management for each of the conditions, including VUR, AGN, nephrotic syndrome, hypospadias, and enuresis (1b, 2c);
    f. developing nursing care for a child with VUR, AGN, nephrotic syndrome, hypospadias, and enuresis (1b, 2c).

16. Demonstrate an understanding of pediatric integumentary alterations by
    a. listing integumentary disorders (1b, 2c);
    b. describing clinical manifestations for each condition listed, including diaper rash, atopic dermatitis/eczema, impetigo, acne, head lice, scabies, and cellulitis (1b, 2c);
    c. determining medications used for each condition, including diaper rash, atopic dermatitis/eczema, impetigo, acne, head lice, scabies, and cellulitis (1b, 2c);
    d. developing nursing care for a child with diaper rash, atopic dermatitis/eczema, impetigo, acne, head lice, scabies, and cellulitis (1b, 2c).

17. Demonstrate an understanding of pediatric musculoskeletal dysfunctions by
    a. listing disorders which result in musculoskeletal dysfunction (1b, 2c);
    b. describing the pathophysiology in each condition, including Duchenne Muscular Dystrophy (DMD), scoliosis, juvenile idiopathic arthritis (JIA), osteomyelitis, developmental dysplasia of the hip (DDH), clubfoot, and cerebral palsy (CP) (1b, 2c);
    c. describing clinical manifestations for each condition, including DMD, scoliosis, JIA, osteomyelitis, DDH, clubfoot, and CP (1b, 2c);
    d. determining medication used for each condition, including DMD, scoliosis, JIA, osteomyelitis, DDH, clubfoot, and CP (1b, 2c);
    e. describing traction and cast care (1b, 2c);
    f. describing multidisciplinary management for each condition, including DMD, scoliosis, JIA, osteomyelitis, DDH, clubfoot, and CP (1b, 2c);
    g. describing genetic implications of DMD (1b, 2c);
    h. developing nursing care for a child with DMD, scoliosis, JIA, osteomyelitis, DDH, clubfoot, and CP (1b, 2c).

RNSG 2208 - Maternal/Newborn Nursing/Women's Health

General

Course Key
14953

Course Rubric	Course Number	Course Title
RNSG	2208	Maternal and Newborn Nursing and Women's Health

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Concepts related to nursing care for childbearing families and women's health issues. Content includes knowledge, judgment, skill, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Required Prerequisites: RNSG 1441, RNSG 1461, RNSG 2213, RNSG 2163, PSYC 2314, or Administrative Approval Required Corequisites: RNSG-2260 (If it is the second attempt at passing this course, then the co-requisite may be waived)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2163 PSYC-2314(8098); # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2263 PSYC-2314(8098);
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-2260
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1441, RNSG 1461, RNSG 2213, RNSG 2163, PSYC 2314, or Administrative Approval
Required Corequisite(s): RNSG 2161

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Investigate common needs and high risk changes which may be experienced by women and the childbearing family; utilize clinical reasoning processes and clinical judgment for the family during the prenatal, perinatal, and postnatal period, as well as caring for patients with women's health issues.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate skills necessary in maternal/newborn nursing by
    a. computing dosage calculations for medication/IV fluids used in labor/delivery, postpartum, nursery and Postoperative Gyn (1a, 1b);
    b. using problem solving in determining nursing care (1a, 1b);
    c. explaining labor/delivery and newborn procedures (1a, 1b, 2c);
    d. describing teaching plans for the laboring patient, the postpartum patient, the gynecological patient, and the newborn (1a, 1b, 2c);
    e. identifying safe, effective care (1a, 1b, 2c);
    f. discussing evidence-based practice (1a, 1b, 1c, 2c).
2. Analyze labor by
    a. explaining physiologic and psychological responses to labor (1a, 1b, 2b, 2c, 2d);
    b. comparing premonitory signs of labor (1a, 1b, 2b, 2c, 2d);
    c. distinguishing between true and false labor (1a, 1b, 2b, 2c, 2d);
    d. comparing the role of passage, passenger, powers, and psyche in the labor process (1a, 1b, 2b, 2c, 2d);
    e. identifying factors that can indicate a greater than normal risk to the mother and fetus during labor (1a, 1b, 2b, 2c, 2d);
    f. explaining the stages and phases of labor (1a, 1b, 2b, 2c, 2d).
3. Evaluate the intra-partum patient's needs by
    a. relating physiological, psychological, and cultural factors (1a, 1b, 2b, 2c, 2d);
    b. explaining oxytocin in the post delivery period (1a, 1b, 2b, 2c, 2d);
    c. developing a nursing care plan for the intra-partum patient (1a, 1b, 2b, 2c, 2d);
    d. computing an Apgar score (1a, 1b, 2b, 2c, 2d).
4. Analyze extra-uterine adaptation by
    a. explaining changes from fetal to newborn circulation (1a, 1b, 2b, 2c, 2d);
    b. explaining respiratory changes at birth (1a, 1b, 2b, 2c, 2d);
    c. comparing mechanisms and effects of heat loss after birth (1a, 1b, 2b, 2c, 2d);
    d. describing body system changes after birth to include the immune, hematologic, renal, endocrine, gastrointestinal, hepatic, and neurological systems (1a, 1b, 2b, 2c, 2d);
    e. describing signs and symptoms of respiratory distress, jaundice, hypoglycemia, hypothermia, hyperthermia, and birth injuries (1a, 1b, 2b, 2c, 2d);
    f. describing periods of reactivity and behavioral states (1a, 1b, 2b, 2c, 2d);
    g. describing initial assessment of the newborn (1a, 1b, 2b, 2c, 2d).
5. Analyze ongoing newborn needs by
    a. explaining ongoing assessment of the newborn (1a, 1b, 2b, 2c, 2d);
    b. explaining dietary and fluid needs (1a, 1b, 2b, 2c, 2d);
    c. describing neonatal pathogens and their effect on the newborn (1a, 1b, 2b, 2c, 2d);
    d. identifying common medications/vaccines used in the neonatal period to include Vitamin K, erythromycin, hepatitis B Vaccine, and hepatitis B immunoglobulin (1a, 1b, 2b, 2c, 2d);
    e. identifying appropriate circumcision and umbilical cord care (1a, 1b, 2b, 2c, 2d);
    f. identifying common laboratory studies performed on the newborn (1a, 1b, 2b, 2c, 2d);
    g. explaining the Texas newborn screening program (1a, 1b, 2b, 2c, 2d);
    h. examining methods to promote newborn safety in the hospital (1a, 1b, 2b, 2c, 2d, 2e);
    i. developing teaching plan for parents (1a, 1b, 2b, 2c, 2d).
6. Apply knowledge and skills to support breastfeeding newborns by
    a. analyzing the physiology of lactation (1a, 1b, 2b, 2c, 2d);
    b. explaining the benefits of breastfeeding for the mother and infant (1a, 1b, 2b, 2c, 2d);
    c. applying the nursing process in management of initial and continued breastfeeding (1a, 1b, 2b, 2c, 2d).
7. Analyze postpartum physiological needs by
    a. describing physiological changes and needs (1a, 1b, 2b, 2c, 2d);
    b. comparing cesarean birth and vaginal birth in terms of nursing assessments and care (1a, 1b, 2b, 2c, 2d);
    c. describing use of oxytocin, analgesics, Rh immune globulin, rubella vaccine, and methergine (1a, 1b, 2b, 2c, 2d);
    d. developing nursing care to support the physiologic well-being of the new mother during the postpartum period (1a, 1b, 2b, 2c, 2d).
8. Evaluate postpartum psychosocial needs by
    a. identifying parent behaviors that indicate bonding and attachment (1a, 1b, 2b, 2c, 2d);
    b. describing progressive phases of maternal adaptation (taking in, taking hold, letting go) (1a, 1b, 2b, 2c, 2d);
    c. explaining the process of family adaptation to the birth of a new infant (1a, 1b, 2b, 2c, 2d);
    d. developing nursing care to support the psychosocial needs of the family (1a, 1b, 2b, 2c, 2d);
    e. identifying maternal concerns of body image and postpartum blues (1a, 1b, 2b, 2c, 2d).
9. Explain pregnancy changes by
    a. differentiating presumptive, probable, and positive signs of pregnancy (1a, 1b, 2b, 2c, 2d);
    b. describing physiological changes which occur during pregnancy (1a, 1b, 2b, 2c, 2d);
    c. describing psychological changes which occur during pregnancy (1a, 1b, 2b, 2c, 2d);
    d. describing each component of initial prenatal visit (1a, 1b, 2b, 2c, 2d);
    e. describing each component of return prenatal visits (1a, 1b, 2b, 2c, 2d);
    f. determining rationales and normal values for prenatal laboratory studies (1a, 1b, 2b, 2c, 2d);
    g. identifying substances which have teratogenic effects (1a, 1b, 2b, 2c, 2d);
    h. explaining the nurse's role in prenatal care (1a, 1b, 2b, 2c, 2d);
    i. identifying teaching needs in pregnancy (1a, 1b, 2b, 2c, 2d);
    j. computing obstetrical history using 3 and 5 digit systems (1a, 1b, 2b, 2c, 2d);
    k. computing EDD using Naegele's rule (1a, 1b, 2b, 2c, 2d).
10. Analyze pregnancy needs by
    a. determining physiological, psychosocial, and cultural needs (1a, 1b, 2b, 2c, 2d);

b. identifying danger signs during pregnancy (1a, 1b, 2b, 2c, 2d);

c. developing nursing care for the ante-partal woman (1a, 1b, 2b, 2c, 2d).

11. Evaluate pregnancy nutritional needs by

a. identifying special nutritional needs (1a, 1b, 2b, 2c, 2d);

b. describing rationales for special nutritional needs (1a, 1b, 2b, 2c, 2d);

c. describing nutritional status on the course and outcome of pregnancy (1a, 1b, 2b, 2c, 2d);

d. describing fetal nutritional needs (1a, 1b, 2b, 2c, 2d);

e. analyzing weight gain (1a, 1b, 2b, 2c, 2d);

f. describing common methods of nutritional assessment (1a, 1b, 2b, 2c, 2d);

g. identifying appropriate nutritional supplements (1a, 1b, 2b, 2c, 2d);

h. developing nursing care to meet the nutritional needs of the pregnant patient (1a, 1b, 2b, 2c, 2d).

12. Compare methods of fetal surveillance during labor by

a. identifying the purposes of intrapartal fetal assessment (1a, 1b, 2b, 2c, 2d);

b. explaining types of equipment used (1a, 1b, 2b, 2c, 2d, 2e);

c. describing types of periodic patterns seen via electronic fetal monitoring (1a, 1b, 2b, 2c, 2d, 2e);

d. explaining the difference between reassuring and non-reassuring fetal heart rate patterns (1a, 1b, 2b, 2c, 2d);

e. analyzing appropriate nursing actions when non-reassuring fetal heart rate patterns occur (1a, 1b, 2b, 2c, 2d).

13. Evaluate intra-partal pain management by

a. describing unique pain factors during labor (1a, 1b, 2b, 2c, 2d);

b. describing factors that influence responses to pain (1a, 1b, 2b, 2c, 2d);

c. analyzing factors that affect the use of pharmacologic and nonpharmacologic pain management techniques during childbirth (1a, 1b, 2b, 2c, 2d);

d. explaining use of sedatives, analgesics, regional, and general anesthetics, anti-emetics, and opioid antagonists (1a, 1b, 2b, 2c, 2d, 2e);

e. explaining pharmacologic pain management methods in regard to body area affected, advantages, disadvantages, maternal effects, fetal effects, residual effects on the newborn, and methods to overcome adverse effects (1a, 1b, 2b, 2c, 2d);

f. developing nursing care to promote pain management (1a, 1b, 2b, 2c, 2d).

14. Analyze labor induction/augmentation by

a. identifying indications for induction or augmentation (1a, 1b, 2b, 2c, 2d);

b. identifying contraindications for induction or augmentation (1a, 1b, 2b, 2c, 2d);

c. describing methods and medications used to induce or augment labor (1a, 1b, 2b, 2c, 2d, 2e);

d. developing nursing care for the patient who is undergoing labor induction or augmentation (1a, 1b, 2b, 2c, 2d).

15. Examine operative obstetrical procedures by

a. describing operative obstetrical procedures (1a, 1b, 2b, 2c, 2d);

b. describing indications for cesarean birth, forceps and vacuum assisted births, episiotomy, amniotomy, and internal and external version (1a, 1b, 2b, 2c, 2d, 2e);

c. describing precautions and contraindications for mother and fetus (1a, 1b, 2b, 2c, 2d);

d. analyzing nurses role in operative obstetrical procedures (1a, 1b, 2b, 2c, 2d);

e. developing nursing care for the patient who has an operative obstetrical procedure (1a, 1b, 2b, 2c, 2d).

16. Explain postpartum complications by

a. identifying risk factors (1a, 1b, 2b, 2c, 2d);

b. describing multidisciplinary actions that can prevent postpartum complications (1a, 1b, 2a, 2b, 2c, 2d);

c. describing signs and symptoms of early and late postpartum hemorrhage, uterine sub-involution, hypovolemic shock, thromboembolic disorders, puerperal infection, and affective disorders (1a, 1b, 2b, 2c, 2d);

d. identifying appropriate medications used to treat the various postpartum complications (1a, 1b, 2b, 2c, 2d);

e. differentiating multidisciplinary management of postpartum complications (1a, 1b, 2a, 2b, 2c, 2d);

f. developing nursing care for the patient who has a postpartum complication (1a, 1b, 2b, 2c, 2d).

17. Analyze labor variations by

a. describing types of dysfunctional labor patterns (1a, 1b, 2b, 2c, 2d);

b. describing maternal and fetal risks during of prolonged labor to precipitous labor (1a, 1b, 2b, 2c, 2d);

c. explaining passage, passenger, and the powers in the pathophysiology of dysfunctional labor (1a, 1b, 2b, 2c, 2d);

d. developing nursing care for the patient experiencing dysfunctional labor (1a, 1b, 2b, 2c, 2d).

18. Analyze preterm labor by

a. defining preterm labor (1a, 1b, 2b, 2c, 2d);

b. identifying risk factors (1a, 1b, 2b, 2c, 2d);

c. explaining methods used to predict preterm labor (1a, 1b, 2b, 2c, 2d);

d. explaining multidisciplinary measures used to prevent/control preterm labor (1a, 1b, 2b, 2c, 2d);

e. comparing tocolytics, beta-adrenergic agents, and corticosteroids (1a, 1b, 2b, 2c, 2d);

f. developing nursing care for the patient who is experiencing preterm labor (1a, 1b, 2b, 2c, 2d).

19. Explain obstetrical emergencies by

a. describing uterine rupture, uterine inversion, prolapsed umbilical cord, amniotic fluid embolus, and trauma (1a, 1b, 2b, 2c, 2d);

b. identifying multidisciplinary management in obstetrical emergencies (1a, 1b, 2a, 2b, 2c, 2d);

c. developing nursing care for the patient who has an obstetrical emergency (1a, 1b, 2b, 2c, 2d).

20. Analyze ante-partal complications by

a. describing common ante-partal complications (1a, 1b, 2b, 2c, 2d);

b. describing pathophysiology of each complication (1a, 1b, 2b, 2c, 2d);

c. describing multidisciplinary management for each complication (1a, 1b, 2a, 2b, 2c, 2d);

d. comparing medications used to treat the various complications (1a, 1b, 2b, 2c, 2d);

e. explaining maternal and fetal risk associated with the complication (1a, 1b, 2b, 2c, 2d);

f. developing nursing care to meet the needs of the ante-partal patient who is experiencing an adolescent pregnancy, diabetes mellitus, hyperemesis gravidarum, domestic violence, substance abuse, Rh incompatibility, and infection (1a, 1b, 2b, 2c, 2d).

21. Analyze pregnancy induced hypertension by

a. listing characteristics (1a, 1b, 2b, 2c, 2d);

b. defining classifications of hypertension during pregnancy (1a, 1b, 2b, 2c, 2d);

c. explaining pathophysiology (1a, 1b, 2b, 2c, 2d);

d. determining genetic risk factors (1a, 1b, 2b, 2c, 2d);

e. identifying maternal and fetal risks (1a, 1b, 2b, 2c, 2d);

f. describing multidisciplinary management (1a, 1b, 2a, 2b, 2c, 2d);

g. explaining pharmacological agents used in treatment (1a, 1b, 2b, 2c, 2d);

h. developing nursing care for the patient who has PIH, or preexisting hypertension (1a, 1b, 2b, 2c, 2d).

22. Analyze pregnancy hemorrhagic conditions by

a. describing common hemorrhagic conditions during early pregnancy (1a, 1b, 2b, 2c, 2d);

b. describing common hemorrhagic conditions during late pregnancy (1a, 1b, 2b, 2c, 2d);

c. determining signs and symptoms for each condition (1a, 1b, 2b, 2c, 2d);

d. describing multidisciplinary management for each condition (1a, 1b, 2b, 2c, 2d);

e. developing nursing care for the woman who has a hemorrhagic condition (1a, 1b, 2b, 2c, 2d).

23. Explain newborn complications by

a. identifying newborns who are at risk (1a, 1b, 2b, 2c, 2d);

b. identifying the newborn problems associated with preterm and post-term birth (1a, 1b, 2b, 2c, 2d);

c. differentiating newborn complications related to small for gestational age, large for gestational age, cold stress, respiratory distress syndrome, transient tachypnea of the newborn, meconium aspiration syndrome, hyperbilirubinemia, infants of a diabetic mother, trauma, drug addiction, and neonatal sepsis (1a, 1b, 2b, 2c, 2d);

d. examining the impact on the family of having a newborn with complications (1a, 1b, 2b, 2c, 2d);

e. developing nursing care for the newborn with various types of complications (1a, 1b, 2b, 2c, 2d).

24. Analyze women's health promotion by

a. identifying common health promotion teaching needs (1a, 1b, 2b, 2c, 2d);

b. identifying health promotion practices to include breast exam, mammography, pap smears, vulvar examination, and pelvic examination (1a, 1b, 2b, 2c, 2d);

c. comparing health promotion at various life stages (1a, 1b, 2b, 2c, 2d);

d. describing the processes involved in the onset of menopause (1a, 1b, 2b, 2c, 2d);

e. developing nursing care for the women who are experiencing perimenopause/menopause (1a, 1b, 2b, 2c, 2d).

25. Analyze common disorders affecting women by

a. identifying risk factors for each disorder (1a, 1b, 2b, 2c, 2d);

b. identifying genetic risk factors for each disorder (1a, 1b, 2b, 2c, 2d);

c. describing pathophysiology of each disorder (1a, 1b, 2b, 2c, 2d);

d. describing multidisciplinary management of each disorder (1a, 1b, 2a, 2b, 2c, 2d);

e. examining medication used in the treatment of various disorders (1a, 1b, 2b, 2c, 2d);

f. developing nursing care for the woman with osteoporosis, pelvic floor disorders, menstrual cycle disorders, benign and malignant breast and reproductive tract disorders, PMS, cardiovascular disease, and infectious disorders of the reproductive tract (1a, 1b, 2b, 2c, 2d).

26. Examine induced abortion by

a. describing methods used for pregnancy termination (1a, 1b, 2b, 2c, 2d, 2e);

b. explaining physical and psychological needs of the patient prior to and after induced abortion (1a, 1b, 2b, 2c, 2d);

c. explaining post abortion teaching needs (1a, 1b, 2b, 2c, 2d);

d. developing nursing care of the woman who seeks to terminate pregnancy (1a, 1b, 2b, 2c, 2d).

27. Compare contraception methods by

a. describing various contraceptive methods (1a, 1b, 2b, 2c, 2d);

b. describing how each method prevents pregnancy (1a, 1b, 2b, 2c, 2d);

c. analyzing advantages, disadvantages, side effects, effectiveness, contraindications for, and cost of each method (1a, 1b, 2b, 2c, 2d);

d. developing nursing care for the individual who is seeking contraception (1a, 1b, 2b, 2c, 2d).

RNSG 2213 - Mental Health Nursing

General

Course Key
14955

Course Rubric	Course Number	Course Title
RNSG	2213	Mental Health Nursing

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of patients and their families. This course lends itself to a blocked approach. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Required Prerequisites: RNSG-1413, RNSG-1360, RNSG-1105, PSYC-2301 or Administrative Approval Required Corequisites: RNSG-2163 (If it is the second attempt at passing this course, then the co-requisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE RNSG-1413 RNSG-1360 RNSG-1105 PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-2163;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1441, RNSG 1461, RNSG 2213, RNSG 2163, PSYC 2314, or Administrative Approval
Required Corequisite(s): RNSG 2260

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the roles of the professional nurse in caring for patients and families experiencing mental health problems; use therapeutic communication; utilize clinical reasoning processes and clinical judgment for providing care to patients and families experiencing mental health problems.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the concepts of psychiatric mental health nursing by
   a. describing the continuum of mental health and mental illness (1b, 2c);
   b. explaining the parts and purpose of the mental status exam and DSM-VTR system (1b, 2c);
   c. describing practice settings (1b, 2c);
   d. defining contributions of various theorists (1b, 2c);
   e. describing therapeutic approaches in caring for patients with emotional or mental disorders (1b, 2c);
   f. explaining the nursing process and standards of care for psychiatric mental health nursing (1b, 2c);

2. Explain the nurse/patient relationship by
   a. describing the therapeutic relationship (1b, 2b);
   b. identifying therapeutic responses by the nurse to common patient behaviors (1b, 2b);
   c. describing techniques that enhance communication and techniques that obstruct communication (1b, 2b);
   d. describing the clinical interview (1b, 2b);

3. Explain the concepts of competence and confidentiality as they pertain to psychiatric mental health nursing by
   a. discussing the civil rights of mentally ill persons (1b, 2b);
   b. describing the legal aspects of admission and discharge procedures (1b, 2b);
   c. describing the rights of the hospitalized patient with mental illness (1b, 2b);

4. Explain psychopharmacology by
   a. discussing functions and cellular composition of the brain (1b, 2b);
   b. discussing interactions of neurotransmitters and receptors (1b, 2b);

c. discussing the major classes of psychotropic medications (1b, 2b);
d. correlating classes of psychotropic medications to patient diagnosis (1b, 2b);
e. identifying nursing interventions specific to psychotropic medications (1b, 2b);

5. Explain mental health disorders of children and adolescents by
   a. discussing predisposing and precipitating factors (1b, 2b);
   b. discussing assessment of development and functioning (1b, 2b);
   c. describing treatment modalities for children and adolescents (1b, 2b);
   d. discussing techniques for managing disruptive behaviors (1b, 2b);
   e. describing diagnoses relevant to disorders of children and adolescents (1b, 2b);
   f. examining medications used in the treatment of childhood and adolescent disorders (1b, 2b);

6. Explain the nursing care for the patient with anger and aggression problems by
   a. discussing assessment guidelines for anger and aggression (1b, 2b);
   b. describing nursing management strategies: psychosocial, pharmacological, and milieu management (1b, 2b);
   c. describing strategies for ensuring safety (1b, 2b);
   d. describing guidelines for use of mechanical restraints (1b, 2b);
   e. applying the nursing process for the care of the patient with anger and aggression problems (1b, 2b);

7. Explain self-destructive behavior by
   a. identifying risk factors and predisposing factors (1b, 2b);
   b. describing SAD PERSONS scale (1b, 2b);
   c. discussing primary, secondary, and tertiary interventions (1b, 2b);
   d. applying the nursing process for the care of the patient with suicidal ideation (1a, 1b);

8. Explain sexual abuse and family violence by
   a. exploring family and domestic violence and its impact on society (1b, 2b);
   b. examining nursing attitudes toward sexual abuse and family violence (1b, 2b);
   c. describing the three stages of domestic violence (1b, 2b);
   d. applying the nursing process for the care of victims of violence (1b, 2b);
   e. discussing documentation and reporting (1b, 2b);
   f. identifying primary, secondary, and tertiary nursing interventions for the care of victims of abuse and violence (1b, 2b);

9. Explain anxiety disorders by
   a. describing adaptive and maladaptive behaviors (1b, 2d);
   b. defining types of anxiety disorders and associated symptoms (1b, 2d);
   c. discussing treatment modalities for anxiety disorders (1b, 2d);
   d. designing patient and family teaching related to anxiety disorders (1b, 2d);
   e. applying the nursing process to the care of the patient with anxiety disorder (1b, 2d);

10. Explain depressive disorders by
    a. describing the types of depressive disorders (1b, 2d);
    b. identifying symptoms of the depressive disorders (1b, 2d);
    c. discussing etiological implications including genomics in the development of depression (1b, 2d);
    d. describing treatment modalities relevant to depressive disorders (1b, 2d);
    e. applying the nursing process to the patient with depression (1b, 2d);

11. Explain bipolar disorders by
    a. describing the types of bipolar disorders (1b, 2d);
    b. identifying symptoms of the bipolar disorders (1b, 2d);
    c. discussing etiological implications including genomics in the development of bipolar disorder (1b, 2d);
    d. discussing treatment modalities relevant to bipolar disorder (1b, 2d);
    e. applying the nursing process to the patient with a bipolar disorder (1b, 2d);

12. Explain substance-related disorders by
    a. defining abuse, dependency, intoxication, withdrawal, and tolerance (1b, 2d);
    b. discussing etiological implications including genomics in the development of a substance disorder (1b, 2d);
    c. describing symptoms of intoxication and withdrawal of the various substances of abuse (1b, 2d);
    d. describing major defense mechanisms of persons with a substance use disorder (1b, 2d);
    e. applying the nursing process to the patient with a substance-related disorder (1b, 2d);

13. Explain family therapy by
    a. defining family therapy (1b, 2b);
    b. identifying types of family therapy (1b, 2b);
    c. discussing psycho-education as a treatment option (1b, 2b);
    d. applying the nursing process to the care of the family (1b, 2b);

14. Explain schizophrenia and other psychotic disorders by
    a. identifying concepts of schizophrenia and related psychotic disorders (1b, 2d);
    b. discussing etiological implications including genomics in the development of schizophrenia and psychosis (1b, 2d);
    c. discussing treatment modalities for the patient with psychosis (1b, 2d);
    d. applying the nursing process to the patient with schizophrenia or psychosis (1b, 2d);

15. Explain therapeutic groups by
    a. discussing concepts relevant to therapeutic groups (1b, 2b);
    b. discussing curative factors that occur in groups (1b, 2b);
    c. describing the phases of group development (1b, 2b);
    d. identifying leadership styles (1b, 2b);
    e. identifying roles group members may assume (1b, 2b);
    f. describing the role of the nurse in group work (1b, 2b);

16. Explain personality disorders by
    a. identifying common features found in personality disorders (1b, 2d);
    b. describing developmental factors associated with personality disorders (1b, 2d);
    c. explaining nursing interventions relevant to aggressive or manipulative behaviors (1b, 2d);
    d. applying the nursing process to the patient with a personality disorder (1b, 2d);

17. Explain eating disorders by
    a. comparing and contrasting bulimia and anorexia (1b);
    b. describing etiological factors relevant to eating disorders (1b);
    c. describing treatment modalities relevant to eating disorders (1b);
    d. applying the nursing process to the patient with an eating disorder (1b);

18. Explain integrative care by
    a. describing complementary treatment modalities (1b, 2d);
    b. discussing implications of patient use of herbals with the possibility of drug interactions (1b, 2d);

RNSG 2260 - Clinical-Registered Nursing/Reg Nurse

General

Course Key
14954

Course Rubric	Course Number	Course Title
RNSG	2260	Clinical-Registered Nursing/Registered Nurse

Semester Credit Hours	Lecture Hours	Lab Hours
2	0	6

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-6) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Required Prerequisites: RNSG-1441, RNSG-1461, RNSG-2213 RNSG-2163 PSYC-2314 or Administrative Approval. Required Corequisites: RNSG-2208 (If it is the second attempt at passing this course, then the co-requisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2163 PSYC-2314(8098); # RNSG-1441(653) RNSG-1461(13626) RNSG-2213(4578) RNSG-2263 PSYC-2314(8098);
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-2208
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1413, RNSG 1360, RNSG 1105, PSYC 2301 or Administrative Approval
Required Corequisite(s): RNSG 2163

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the attitudes and values of the nursing profession by
    a. interacting with patients, nursing faculty, and healthcare team in a professional manner (1a, 1b, 1c, 2b);
    b. demonstrating personal and professional responsibility and accountability (1a, 1b, 1c, 2b);
    c. adhering to policies and procedures of Tarrant County College, the Nursing Department, the course, the clinical facility, and the Texas Nurse Practice Act (1a, 1b, 1c, 2b, 2c, 2e);
    d. demonstrating professional behavior, appearance, and attitude (1a, 1b, 1c, 2b);
    e. demonstrating ethical/legal accountability for actions (1a, 1b, 1c, 2b);
    f. selecting learning experiences that enhance competency and promote professional and personal development (1b, 2b);
    g. organizing and completing assigned tasks in appropriate time and performing total patient care (1a, 1b, 1c, 2b);
    h. utilizing evidence based clinical practice (1a, 1b, 2a, 2b, 2c, 2e);
    i. actively seeking and participating in self-directed learning experiences (1a, 1b, 1c, 2b, 2c, 2e);
2. Demonstrate the knowledge, skills, and attitudes that ensure a culture of safety in the practice of caring for women and childbearing families by
    a. implementing measures to promote a safe environment for patients and others (1a, 1b, 2e);
    b. identifying patients accurately (1a, 1b, 2e);
    c. performing nursing procedures and skills correctly (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. implementing and maintaining measures to prevent exposure to infectious pathogens and communicable conditions (1a, 1b, 2a, 2c, 2d);
    e. maintaining and monitoring for the chemical safety of the patient (1a, 1b, 2a, 2c, 2d);
    f. stating the rationale for and the effects of medications and treatments and correctly administering the same (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. maintaining and monitoring for the thermal safety of the patient (1a, 1b, 2a, 2e);
    h. assuring the psychological safety of the patient by using stress control methods and therapeutic communication (1a, 1b, 1c, 2b);
    i. advocating for patient/family (1a, 1b, 1c, 2a, 2b, 2c);
    j. implementing patient care according to legal and ethical, state and national standards (1a, 1b, 1c, 2b, 2c, 2e);
3. Initiate effective communication with patients, families, and members of the interdisciplinary health care team by
    a. demonstrating verbal and nonverbal communication skills that are relevant, accurate, complete, timely, clear, understandable, and therapeutic (1a, 1b, 2b);
    b. demonstrating written/EHR (where available) communication skills that are relevant, accurate, complete, timely, legible, and meaningful (1a, 1b, 2c, 2d, 2e);
    c. demonstrating active listening, genuineness, observation skills, physical attentiveness, and interviewing skills (1a, 1b, 1c, 2b);
    d. communicating learning needs to staff and instructors (1a, 1c, 2b);
4. Provide patient care that is respectful and responsive to women and childbearing families by
    a. demonstrating acceptance and consideration of the physical, emotional, social, spiritual, and cultural needs of the patient and others to achieve desired patient outcomes (1a, 1b, 1c, 2b);
    b. demonstrating caring behaviors using comfort, compassion, concern, empathy, nurturing, touch, and support in assisting patient in coping process (1a, 1b, 1c, 2b);
    c. delivering care in a nonjudgmental and non-discriminating manner (1a, 1b, 1c, 2b);
5. Analyze teaching/learning principles to meet the needs of women and childbearing families by
    a. assessing learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration (1a, 1b, 1c, 2b);
    b. collaborating with patient and interdisciplinary health care team to develop individual teaching plans based upon patient/family learning style and needs (1a, 1b, 1c, 2b);
    c. using best practice standards and other evidence based findings in developing teaching plans for patients/families (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. developing and implementing individualized patient and family teaching (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. implementing pain management, non-pharmacological techniques, coaching, breathing/relaxation techniques, positioning and electronic fetal monitoring (EFM) for the labor patient (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    f. implementing ambulation, nutrition, hygiene, elimination, incision care, self-care, pericare, involution, lochia, pain management, postpartum blues and breastfeeding for the postpartum patient (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    g. implementing thermoregulation, circumcision, nutrition, cord care, diapering, bathing, bulb suctioning, elimination, positioning, and immunizations for the newborn (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    h. documenting teaching interventions, patient and family response (1a, 1c);
    i. evaluating teaching goals and revising plan as needed (1a, 1b, 2b, 2c);
    j. demonstrating discharge teaching (with licensed personnel), including signs and symptoms of when to notify physician after discharge (1a, 1b, 1c, 2a, 2b, 2c, 2e);
6. Utilize clinical reasoning skills when providing care for women and childbearing families by
    a. performing comprehensive assessment to identify health needs of patient and families (1a, 1b, 1c, 2b);
    b. monitoring changes in health status of patients and families (1a, 1b, 2c, 2e);
    c. documenting comprehensive assessment data (1a, 1b, 2a, 2c, 2e);
7. Collaborate with interdisciplinary teams to coordinate care of women and childbearing families to achieve quality patient outcomes by
    a. collaborating with the patient, family, and interdisciplinary team to coordinate care (1a, 1b, 1c, 2b);
    b. collaborating with interdisciplinary team to make referrals to appropriate community agencies and health care resources to provide continuity of care (1a, 1b, 1c, 2b, 2c);

RNSG 2461 - Clinical-Register Nursing/Register Nurs

General

Course Key
14952

Course Rubric	Course Number	Course Title
RNSG	2461	Clinical-Registered Nursing/Registered Nurse

Semester Credit Hours	Lecture Hours	Lab Hours
4	0	12

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-12) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Focus is on holistic human needs. Associate degree nurse role assimilation is facilitated through the development of identified major concepts. Required Prerequisites: RNSG 2213, RNSG 2163, RNSG 2208, RNSG 2260, RNSG 2201, RNSG 2161, or Administrative Approval. Required Corequisite: RNSG-1443 (If it is the second attempt at passing this course, then the corequisite may be waived.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take RNSG-2213(4578) RNSG-2263(13632) RNSG-2208(13628) RNSG-2260(8420) RNSG-2201(13627) RNSG-2261(13631); # Take RNSG-2213(4578) RNSG-2163 RNSG-2208(13628) RNSG-2260(8420) RNSG-2201(13627) RNSG-2161(14712); # Take RNSG-2213(4578) RNSG-2163 RNSG-2208(13628) RNSG-2260(8420) RNSG-2201(13627) FDNS-2169(13621); # Take RNSG-2213(4578) RNSG-2263(13632) RNSG-2208(13628) RNSG-2260(8420) RNSG-2201(13627) RNSG-2161(14712);
A Subrequirement block where not all groups are required

30
(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

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(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take RNSG-1443;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 1441, RNSG 1461, RNSG 2213 RNSG 2163 PSYC 2314 or Administrative Approval
Required Corequisite(s): RNSG 2208

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

The seven course concepts and outcomes include:

Safety: Demonstrate the knowledge, skills, and attitudes that ensure culture of safety in practice (1a, 1b, 1c, 1d, 1e, 2b, 2c, 2e, 2f, 2a, 3a, 3d).

Professionalism: Demonstrate the attitudes and values of the nursing profession (1a, 1b, 1c, 1d, 1e, 2b, 2c, 2e, 2f, 2a, 3a, 3d).

Caring Approach: Provide patient care that is respectful of and responsive to individual patient preferences, needs, and values (1a, 1b, 1c, 1d, 1e, 2b, 2c, 2e, 2f, 2a, 3a, 3d).

Teaching: Implement teaching/learning principles to meet the needs of patients and families with complex health needs (1a, 1b, 1c, 1d, 1e, 2b, 2c, 2e, 2f, 2a, 3a, 3d).

Clinical Reasoning: Independently utilize clinical reasoning skills when providing care for patients with complex health needs (1a, 1b, 1c, 1d, 1e, 2b, 2c, 2e, 2f, 2a, 3a, 3d).

Communication: Initiate and facilitate effective communication with patients, families, and members of the interdisciplinary health care team (1a, 1b, 1c, 1d, 1e, 2b, 2c, 2e, 2f, 2a, 3a, 3d).

Collaboration: Collaborate with interdisciplinary teams to manage patients, families, and/or communities to achieve quality patient outcomes (1a, 1b, 1c, 1d, 1e, 2b, 2c, 2e, 2f, 2a, 3a, 3d).

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the knowledge, skills, and attitudes that ensure a culture of safety in practice by
   a. implementing measures to promote a safe environment for patients and others
   b. identifying patients correctly
   c. performing nursing procedures and skills correctly
   d. implementing and maintaining measures to prevent exposure to infectious pathogens and communicable conditions
   e. maintaining and monitoring for the chemical safety of the patient
   f. maintaining and monitoring for the thermal safety of the patient
   g. assuring the psychological safety of the patient by using stress control methods and therapeutic communication
   h. advocating independently on behalf of patients, families, self, and others
   i. implementing patient care according to legal and ethical state and national standards
   j. formulating goals and outcomes to reduce risk using evidence based guidelines
   k. practicing within the parameters of individual knowledge and experience
2. Demonstrate the attitudes and values of the nursing profession by
   a. demonstrating professional attitudes and behaviors in the health care setting
   b. demonstrating personal accountability and growth
   c. adhering to policies and procedures of Tarrant County College, the Nursing Department, the course, the clinical facility, and the Texas Nurse Practice Act
   d. adhering to the professional, ethical, and legal standards of nursing
   e. justify the value of ongoing educational activities to maintain competency and currency
   f. demonstrating behaviors and attitudes indicating honesty, accountability, trustworthiness, reliability, and integrity
   g. demonstrating proficiency in effective professional communication
   h. delineating and maintaining appropriate professional boundaries and patient confidentiality
   i. seeking and participating in self-directed learning experiences
   j. participating in community based clinical experiences
   k. applying previously learned knowledge
   l. participating in clinical self-evaluation with documentation of substantiating behaviors
   m. advocating for quality patient care
   n. acknowledging responsibility for lifelong learning
   o. integrating multiple resources into evidence based practice
   p. assuming responsibility for and accepting accountability for personal and professional beliefs and actions
3. Provide patient care that is respectful of and responsive to individual patient preferences, needs, and values by
   a. applying principles of culturally competent care throughout the implementation of the nursing process
   b. using caring behaviors in nursing process development and implementation
   c. assisting patient and significant support person(s) to cope with and adapt to stressful events and changes in health status
   d. demonstrating sensitivity to the physical, emotional, social, spiritual, and cultural needs of the patient
   e. promoting wellness behaviors in self and others
4. Implement teaching and learning principles to meet the needs of patients and families with complex health needs by
   a. assessing learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration
   b. collaborating with patient and interdisciplinary health care team to develop individual teaching plans based upon patient/family learning style and needs
   c. developing, implementing, and evaluating independently teaching plans to meet the needs of patients and families with complex health needs
   d. implementing individualized teaching/educational programs for individuals and families
   e. demonstrating effective teaching characteristics in teaching/learning situations
   f. performing teaching independently or interdependently as appropriate
   g. providing current and accurate information based on best practice standards and evidence-based findings
   h. using several methods of teaching to accommodate a variety of learning styles
   i. evaluating the patient and significant support person's progress toward achievement of identified learning outcomes, and modifying the teaching plan based on the evaluation
   j. documenting teaching interventions, patient, and family response
5. Independently utilize clinical reasoning skills when providing care for patients with complex health needs by
   a. demonstrating autonomy in collecting and analyzing physical, psychosocial, spiritual, cultural, occupational, and environmental data in a variety of health care settings

b. applying principles of culturally competent care throughout the implementation of the nursing process

c. prioritizing nursing diagnoses in caring for patients with complex health needs

d. developing individualized plans of nursing care for patients of various developmental levels to restore health, prevent disease, and support during end of life

e. planning and prioritizing the delivery of nursing care to multiple patients in a variety of health care settings

f. evaluating the achievement of patient outcomes and revising the plan of care as needed

g. basing decisions and practice on reason and objective evidence

h. recognizing social, political, and economic determinants of health status

6. Initiate and facilitate effective communication with patients, families, and members of the interdisciplinary health care team by

a. demonstrating verbal and nonverbal communication skills that are relevant, accurate, complete, timely, clear, understandable, and therapeutic

b. initiating and facilitating communication independently to meet the needs of patients and families

c. demonstrating communication skills as the leader of a student team

d. evaluating communication techniques utilized with the patient, family, significant others, and members of the health care team

e. demonstrating written communication skills that are relevant, accurate, complete, timely, legible, and meaningful

f. demonstrating active listening, genuineness, empathy, observation skills, physical attentiveness, and interviewing skills

g. recognizing and maintaining professional boundaries of the nurse/patient relationship

h. assisting patients and families in expression of feelings

i. displaying spontaneous, non-defensive behaviors

7. Collaborate with interdisciplinary teams to manage patients, families, and/or communities to achieve quality patient outcomes by

a. collaborating with the patient, significant support person(s), and interdisciplinary health care team to promote progress toward achievement of outcomes

b. coordinating the decision-making process with the patient, significant support person(s), and interdisciplinary healthcare team

c. using leadership skill in collaboration with others to achieve patient and organizational outcomes

d. delegating tasks and collaborating to achieve positive patient outcomes

e. supervising the health care personnel to whom aspects of care have been delegated

f. interacting creatively and openly with others to solve problems to achieve patient goals and outcomes

g. demonstrating collaboration in communication with instructor, staff, and peers

h. using appropriate channels of communication to achieve positive patient outcomes

RSPT 1101 - Introduction to Respiratory Care

General

Course Key
8993

Course Rubric	Course Number	Course Title
RSPT	1101	Introduction to Respiratory Care
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
1	0	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-3). An introduction to the field of respiratory care. Topics include the history of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR). Recommended Corequisite: RSPT-1166

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Co- Requisite

10
A Requirement block where all subrequirements are required

take rspt-1166;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RNSG 2213, RNSG 2163, RNSG 2208, RNSG 2260, RNSG 2201, RNSG 2161, or Administrative Approval
Required Corequisite(s): RNSG 1443

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Outline the history of the respiratory care profession; outline the organization and function of hospital departments; describe issues in medical malpractice and ethics; identify the respiratory therapist's role in performing basic vital signs, body mechanics, and cardiopulmonary assessment; and describe infection control techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Develop an introductory understanding and knowledge of the field of Respiratory Care (RC) by

a. identifying important historical figures and dates contributing to RC (1a, 1b, 2c);

b. identifying various RC organizations and listing their functions (1a, 1b, 2c);

c. identifying ethical and unethical practices (1a, 1b, 2c);

d. describing components of malpractice (1a, 1b, 2c);

e. listing hospital communication codes (1a, 1b, 2c);

f. defining normal vital signs (1a, 1b, 2c);

g. applying proper body mechanics when lifting (1a, 1b, 2c);

h. describing and identifying various structures of the respiratory system (1a, 1b, 2c);

i. defining lung volumes and capacities and drawing lung graphs (1a, 1b, 2c);

j. analyzing lung volumes and capacities and computing results (1a, 1b, 2c);

k. stating the importance and identifying various sections of a patient's chart (1a, 1b, 2c);

l. identifying the different types of physician orders (1a, 1b, 2c);

m. identifying various hospital terms and their hospital approved abbreviations (1a, 1b, 2c);

n. contrasting various types of medical data (1a, 1b, 2c);

o. describing patient history and interview techniques (1a, 1b, 2c);

p. describing four basic chest physical exam techniques (1a, 1b, 2c);

q. describing abnormal chest exam data (1a, 1b, 2c);

r. listing and defining normal and abnormal breath sounds (1a, 1b, 2c);

s. describing laboratory procedures used to identify microorganisms (1a, 1b, 2c);

t. describing different methods of disinfection and sterilization (1a, 1b, 2c);

u. identifying different isolation techniques (1a, 1b, 2c);

v. describing current methods of CPR (1a, 1b, 2c);

w. listing three ways to communicate with diverse populations in the hospital setting (1a, 1b, 2c);

x. describing and applying fundamental chemical principles as they relate to the behavior of matter and the periodic table (1a, 1b, 2c).

RSPT 1113 - Respiratory Care Pharmacology

General

Course Key
14683

Course Rubric
RSPT

Course Number
1113

Course Title
Respiratory Care Pharmacology

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0). A study of basic pharmacological principles/practices of cardiopulmonary drugs. Emphasis on classification, routes of administration, dosages/calculations, and physiological interaction. Recommended Co-Requisites: RSPT-1101 and RSPT-1310

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Co- Requisite

10
A Requirement block where all subrequirements are required

 # Take RSPT-1101 RSPT-1310;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Corequisite(s): RSPT 1166

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the mode of action, clinical indications, dosages, hazards, and side effects of cardiopulmonary drugs; calculate drug dosages; and select optimal drugs used in the practice of respiratory care.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the mode of action, clinical indications, dosages, hazards, and side effects of cardiopulmonary drugs (1a, 1b, 2c).
2. Demonstrate competence in calculating drug dosages and selecting optimal drugs used in the practice of respiratory care by
    a. describing various terms used in respiratory pharmacology (1a, 1b, 2c);
    b. identifying cardiopulmonary medications, doses, uses, and side effects of these medications (1a, 1b, 2c);
    c. classifying cardiopulmonary medications (1a, 1b, 2c);
    d. determining which cardiopulmonary medication is appropriate (1a, 1b, 2c);
    e. evaluating which drug delivery device is most appropriate (1a, 1b, 2c);
    f. recognizing cardiopulmonary drugs by both product and generic names (1a, 1b, 2c);
    g. discriminating between two or more drugs that produce similar actions (1a, 1b, 2c);
    h. ensuring proper drug delivery is performed (1a, 1b, 2c);
    i. assessing the patient post pharmacologic therapy (1a, 1b, 2c);
    j. interpreting the overall therapeutic effects (1a, 1b, 2c).

RSPT 1141 - Respiratory Home Care/Rehabilitation

General

Course Key
14700

Course Rubric
RSPT

Course Number
1141

Course Title
Respiratory Home Care/Rehabilitation

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0). A study of respiratory home care/rehabilitation equipment, procedures, and patient education. Recommended Prerequisites: RSPT-2210 and RSPT-2425

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RSPT-2210 RSPT-2425;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Corequisite(s): RSPT 1101 and RSPT 1310

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Select therapeutic modalities for home care and rehabilitation patients; identify equipment; describe assessment, treatment, and documentation; and apply patient education principles.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the basics of a home care program by
    a. describing the essentials of a home care program, including patient selection, equipment, and monitoring (1a, 1b, 2c);
    b. identifying problems with a home care program (1a, 1b, 2c);
2. Demonstrate an understanding of different home oxygen systems by
    a. describing the technique, indications, advantages, and complications of trans-tracheal oxygen (1a, 1b, 2c);
    b. explaining the advantages and disadvantages of liquid oxygen systems (1a, 1b, 2c);
    c. explaining the advantages and disadvantages of oxygen concentrators (1a, 1b, 2c);
    d. explaining the use and advantage of different types of oxygen conserving devices (1a, 1b, 2c);
    e. describing the proper use of home oxygen equipment (1a, 1b, 2c);
3. Demonstrate an understanding of the role of the RCP in a home care program by
    a. describing key elements involved with the home visit (1a, 1b, 2c);
    b. describing the respiratory care procedures commonly taught by the home care respiratory care practitioner (1a, 1b, 2c);
    c. identifying benefits for home care patients (1a, 1b, 2c);
    d. identifying different payment methods for home respiratory therapy equipment (Medicare, Medicaid, and insurance) (1a, 1b, 2c);
4. Demonstrate an understanding of the essentials of a pulmonary rehabilitation program by
    a. describing what is considered fitness for a COPD patient (1a, 1b, 2c);
    b. describing the when, where, and why essentials for a pulmonary rehabilitation program (1a, 1b, 2c);
    c. describing the various training techniques used in a pulmonary rehabilitation program (1a, 1b, 2c);
    d. defining pulmonary rehabilitation (1a, 1b, 2c);
5. Identify differences in pediatric home care by
    a. describing the role of the respiratory care practitioner in pediatric home care (1a, 1b, 2c);
    b. describing the types of home care equipment used for the pediatric patient (1a, 1b, 2c);
    c. identifying the anatomical, physiological, and psychosocial differences associated with pediatric patients (1a, 1b, 2c);
6. Demonstrate an understanding of the role of the respiratory care practitioner in the home care setting by
    a. identifying occupational hazards, risks, and appropriate precautions to protect caregivers (1a, 1b, 2c);
    b. describing the signs/symptoms and management strategies to review with the home care patient (1a, 1b, 2c);

c. describing home monitoring devices, training, and follow up for the monitored baby (1a, 1b, 2c);

d. identifying individuals at risk for infection, common sites of infection, and transmission of pathogens (1a, 1b, 2c);

7. Demonstrate an understanding of devices used in the home care and alternate sites for respiratory care by

a. explaining aerosol therapy (1a, 1b, 2c);

b. describing the advantages and disadvantages of different types of noninvasive home mechanical ventilation (NPPV, CPAP) (1a, 1b, 2c);

c. describing the devices used in home diagnostics and patient monitoring (1a, 1b, 2c);

d. identifying alternates sites for respiratory care (1a, 1b, 2c);

RSPT 1166 - Practicum-Respiratory Care Therapy(ist)

General

Course Key
727

Course Rubric	Course Number	Course Title
RSPT	1166	Practicum (or Field Experience) - Respiratory Care Therapy/Therapist

Semester Credit Hours	Lecture Hours	Lab Hours
1	0	7

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-0-7). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Recommended Corequisite: RSPT-1101

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Co- Requisite

10
A Requirement block where all subrequirements are required

take rspt-1101;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 2210 and RSPT 2425

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to observe and to interact appropriately in the hospital workplace by

a. completing the AHA Basic Life Support Course (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. completing the orientation packet for each clinical affiliate (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

c. completing the required number of professional credits (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

RSPT 1240 - Adv Cardiopulmonary Anatomy/Physiology

General

Course Key
14682

Course Rubric	Course Number	Course Title
RSPT	1240	Advanced Cardiopulmonary Anatomy and Physiology

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Provides an advanced presentation of anatomy and physiology of the cardiovascular and pulmonary system. Recommended Prerequisites: RSPT-1101

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKe RSPT-1101(8993);
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Corequisite(s): RSPT 1101

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain advanced concepts of cardiopulmonary anatomy and physiology; describe the neurological control of breathing; differentiate ventilation/perfusion concepts, to include acid-base balance with classification; and summarize principles of gas transport.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an advanced understanding of the anatomy and physiology of the cardiovascular, renal, and pulmonary systems by

a. describing the mechanics of breathing (1a, 1b, 2c);

b. describing how the blood vessels remove gas from the lungs (1a, 1b, 2c);

c. describing how matching of gas and blood determine gas exchange (1a, 1b, 2c);

d. describing how gas exchange is regulated (1a, 1b, 2c);

e. describing renal anatomy and physiology (1a, 1b, 2c);

f. describing renal control of acid/base balance (1a, 1b, 2c);

RSPT 1266 - Practicum-Respiratory Care Therapy(ist)

General

Course Key
737

Course Rubric
RSPT

Course Number
1266

Course Title
Practicum (or Field Experience) - Respiratory Care Therapy/Therapist

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Recommended Prerequisites: RSPT-1101 and RSPT-1166

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take rspt-1101 rspt-1166;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 1101

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to observe and to interact appropriately in the hospital workplace by
    a. listing the steps for sterilization (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. performing the techniques used in delivering humidity and aerosol therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing the steps for administering oxygen therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. performing various therapies utilizing aseptic technique (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. performing the steps for administering small volume nebulizer therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. performing the steps for administering meter dose inhaler therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. performing the steps for administering dry powder inhaler therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. performing the steps for administering incentive spirometry therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. performing the steps for administering IPPB therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. performing the steps for sputum induction (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    k. performing the steps for administering carbogen and heliox (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    l. performing the steps for cylinder transport (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    m. completing the required number of professional credits (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

RSPT 1267 - Practicum-Respiratory Therapy

General

Course Key
742

Course Rubric
RSPT

Course Number
1267

Course Title
Practicum - Respiratory Care Therapy/Therapist

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.
Recommended Prerequisite: RSPT-1266

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take rspt-1266;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 1101 and RSPT 1166

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to observe and to interact appropriately in the hospital workplace by
    a. performing the steps for administering incentive spirometry (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating the techniques for various breathing exercises (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. completing the steps for administering tracheostomy care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. performing the steps for open suctioning (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. performing the steps for administering chest physiotherapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. performing the steps for administering small volume nebulizer therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. performing the steps for administering all forms of oxygen therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. performing the steps for administering IPPB therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. performing the steps for inline suctioning (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. performing the steps for administering MDI and DPI therapies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    k. performing the steps for drawing arterial blood gases (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    l. performing the steps for arterial line sampling (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    m. performing the steps for transport with oxygen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    n. performing the steps for administering aerosol and humidity therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    o. completing the required number of professional credits (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

RSPT 1310 - Respiratory Care Procedures I

General

Course Key
14681

Course Rubric
RSPT

Course Number
1310

Course Title
Respiratory Care Procedures I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Essential knowledge of the equipment and techniques used in the treatment of cardiopulmonary disease. Recommended Co-Requisites: RSPT-1101 and HPRS-1206

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # Take RSPT-1101 HPRS-1206;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 1266

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize data related to patient assessment; utilize respiratory care equipment; perform therapeutic procedures including medical gas therapy, humidity and aerosol therapy, lung expansion therapy, bronchial hygiene therapy, and pulse oximetry; recommend modification of therapy; and maintain patient records.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of utilizing data for patient assessments, maintaining patient records, and utilizing respiratory care equipment (1a, 1b, 2c, 2e).
2. Demonstrate competence in therapeutic procedures, including medical gas therapy, humidity and aerosol therapy, lung expansion therapy, bronchial hygiene therapy, and pulse oximetry by
    a. describing the definition and behaviors of gas laws (1a, 1b, 2c);
    b. defining various terms used in physics (1a, 1b, 2c);
    c. defining various standard abbreviations utilized in medical science (1a, 1b, 2c);
    d. describing the properties of different medical gases (1a, 1b, 2c);
    e. describing the indications, precautions, hazards, and complications of oxygen therapy (1a, 1b, 2c);
    f. describing absolute humidity and relative humidity (1a, 1b, 2c);
    g. describing the indications, precautions, hazards, and complications of humidity and aerosol therapy (1a, 1b, 2c);
    h. explaining aerosol deposition (1a, 1b, 2c);
    i. comparing and contrasting pulse oximeters (1a, 1b, 2c);
    j. describing the indications, precautions, hazards, and complications of lung expansion therapy (1a, 1b, 2c);
    k. describing the primary responsibilities of the RCP when delivering lung expansion therapy (1a, 1b, 2c, 2e);
    l. describing the planning, implementation, follow up, and evaluation of lung expansion therapy (1a, 1b, 2c, 2e);
    m. describing normal airway clearance mechanisms and what can impair their function (1a, 1b, 2c);
    n. demonstrating directed coughing and related expulsion techniques (1a, 1b, 2c);
    o. demonstrating PEP therapy (1a, 1b, 2c);
    p. demonstrating incentive spirometry therapy (1a, 1b, 2c);
    q. demonstrating intermittent positive pressure breathing therapy (1a, 1b, 2c, 2e);
    r. completing the Mosby CPG Hyperinflation Therapy computer program (1a, 1b, 2c);

RSPT 1311 - Respiratory Care Procedures II

General

Course Key
14680

Course Rubric
RSPT

Course Number
1311

Course Title
Respiratory Care Procedures II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Develops essential knowledge and skills of airway care and mechanical ventilation. Recommended Prerequisite: RSPT-1310

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RSPT-1310
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Corequisite(s): RSPT 1101 and HPRS 1206

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Set up equipment; describe concepts of mechanical ventilation; perform artificial airway insertion, airway management, manual resuscitation, suctioning, arterial sampling techniques, and blood gas analysis and interpretation; troubleshoot equipment; maintain patient records; and communicate relevant information to members of the health care team.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate competence in postural drainage and percussion, artificial airways, manual resuscitation devices, suctioning, bedside spirometry, arterial sampling techniques, and blood gas analysis and interpretation by
    a. comparing arterial and mixed venous blood gases (1a, 1b, 2c);
    b. describing how to assess the need for and select artificial airways (1a, 1b, 2c);
    c. listing the complications and hazards associated with insertion of artificial airways (1a, 1b, 2c);
    d. demonstrating how to perform orotracheal and nasotracheal adult intubation (1a, 1b, 2c);
    e. describing how to assess and confirm proper endotracheal tube placement (1a, 1b, 2c);
    f. describing how and why to perform a tracheotomy (1a, 1b, 2c);
    g. describing the types of damage caused by artificial airways (1a, 1b, 2c);
    h. describing how to properly maintain and troubleshoot artificial airways (1a, 1b, 2c);
    i. describing how to measure and adjust tracheal tube cuff pressure (1a, 1b, 2c);
    j. describing how to extubate a patient (1a, 1b, 2c);
    k. demonstrating how to perform endotracheal and nasotracheal suctioning (1a, 1b, 2c);
    l. describing how to assist the physician in setting up and performing bronchoscopy (1a, 1b, 2c);
    m. describing normal airway clearance mechanisms and what can impair their function (1a, 1b, 2c);
    n. listing diseases associated with abnormal clearance of secretions (1a, 1b, 2c);
    o. listing goals and indications for bronchial hygiene therapy (1a, 1b, 2c);
    p. demonstrating postural drainage therapy (1a, 1b, 2c);
    q. evaluating all components of oxygen delivery (1a, 1b, 2c);
    r. describing oxygen transport (1a, 1b, 2c);
    s. demonstrating high frequency compression/oscillation methods (1a, 1b, 2c);
    t. demonstrating mobilization and exercise (1a, 1b, 2c);
    u. describing how to monitor and evaluate patient response to bronchial hygiene therapy (1a, 1b, 2c);
    v. describing how to modify bronchial hygiene therapies based on the patient's response (1a, 1b, 2c);
    w. describing characteristics, limitations, proper usage, and criteria for resuscitator bags (1a, 1b, 2c);
    x. defining compensation arterial blood gases (1a, 1b, 2c);
    y. interpreting arterial blood gas values (1a, 1b, 2c);
    z. listing causes of arterial blood gas abnormalities (1a, 1b, 2c);
    aa. defining correction for arterial blood gases (1a, 1b, 2c);
    ab. defining introductory concepts of mechanical ventilation (1a, 1b, 2c, 2e);
    ac. completing the Mosby CPG Bronchial Hygiene computer program (1a, 1b, 2c);

ad. completing the PIP Chest Physiotherapy computer program (1a, 1b, 2c);

ae. completing the Mosby CPG Resuscitation computer program (1a, 1b, 2c);

RSPT 2131 - Simulations in RSPT Care

General

Course Key
14699

Course Rubric
RSPT

Course Number
2131

Course Title
Simulations in Respiratory Care

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0). Theory of clinical simulation examinations. Includes construction types, scoring, and mechanics of taking the computerized simulation examination. Recommended Prerequisites: RSPT-2210 and RSPT-2425

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for required prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take RSPT-2210 RSPT-2425;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 1310

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Utilize clinical simulations to enhance information gathering and decision making skills.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Develop decision making skills through group discussion and individual practice by
    a. demonstrating decision making through group discussion (1a, 1b, 2b, 2c);
    b. demonstrating proficiency taking branching logic exam (1a, 1b, 2c);
    c. describing mechanics of taking branching logic exam (1a, 1b, 2c);
    d. describing scoring for branching logic exam (1a, 1b, 2c);
    e. describing basic format for branching logic exam (1a, 1b, 2c);
    f. demonstrating basic concepts of computer usage (1a, 1b, 2c, 2e);

RSPT 2139 - Advanced Cardiac Life Support

General

Course Key
14698

Course Rubric
RSPT

Course Number
2139

Course Title
Advanced Cardiac Life Support

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0). Advanced Cardiac Life Support (ACLS) with an emphasis on airway management. Designed to develop skills for resuscitation of the adult. Includes strategies for managing and stabilizing the cardiopulmonary arrested patient. May include certification based on American Heart Association standards. Recommended Prerequisites: RSPT-1240

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for pre-requisite.
Type
Pre-requisite

10
A Requirement block where all subrequirements are required

 # TAKE RSPT-1240;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 2210 and RSPT 2425

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the principles, techniques, and complications of intravenous and electrical therapy, airway control, ventilation, and supplemental oxygen; analyze cardiac dysrhythmias; integrate basic life support with advanced cardiovascular life support interventions; and summarize airway management principles.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge of the elements of the course by
    a. describing the functional anatomy and physiology of the heart (1a, 1b, 2c);
    b. describing the electrical and chemical phenomena of the heart (1a, 1b, 2c);
    c. identifying static and dynamic tracings of arrhythmias (1a, 1b, 2c);
    d. describing the appropriate course of action to be taken for various ACLS algorithms (1a, 1b, 2c);
    e. describing the energy requirements for successful defibrillation (1a, 1b, 2c);
    f. listing the indications for a precordial thump (1a, 1b, 2c);
    g. describing the indications and proper technique for synchronized cardioversion (1a, 1b, 2c);
    h. describing the indications, mode of action, and dosage for ACLS drugs (1a, 1b, 2c);

RSPT 2147 - Specialties in Respiratory Care

General

Course Key
14697

Course Rubric
RSPT

Course Number
2147

Course Title
Specialties in Respiratory Care

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0). Emerging and specialty practices in respiratory care. Recommended Prerequisites: RSPT-2210 and RSPT-2425

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RSPT-2210 RSPT-2425;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 1240

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Delineate the respiratory therapist's role in emerging and specialty practices.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe/define ECMO (1a, 1b, 2c).
2. Identify the routes of ECMO circuits (1a, 1b, 2c).
3. Classify the indications for using ECMO (1a, 1b, 2c).
4. Compare and break down the conditions that will exclude the baby from ECMO (1a, 1b, 2c).
5. List the hazards of ECMO (1a, 1b, 2c).
6. Describe and discuss the indications for HBO (1a, 1b, 2c).
7. Recall the two categories of HBO's physiological effect (1a, 1b, 2c).
8. Compare and contrast the two types of chambers used to deliver HBO (1a, 1b, 2c).
9. Classify and describe the hazards of HBO (1a, 1b, 2c).
10. Construct the process of a "dive" (1a, 1b, 2c).
11. List the contraindications for HBO (1a, 1b, 2c).
12. Classify and discuss the uses of hypobarics (1a, 1b, 2c).
13. Classify the timing of oxygen/CO2 analysis when a metabolic monitor is used (1a, 1b, 2c).
14. Recall the effect of decreased protein intake on the pulmonary diaphragm (1a, 1b, 2c).
15. Distinguish the effects of a carbohydrate overdose on the COPD patient (1a, 1b, 2c).
16. Classify five types of patients who should be considered for a metabolic study (1a, 1b, 2c).
17. Recall the indications/clinical situations in which NO is used (1a, 1b, 2c).
18. Explain the methods that are used to administer NO (1a, 1b, 2c).
19. List the hazards and side effects of NO (1a, 1b, 2c).
20. Compare and contrast NO and ECMO (1a, 1b, 2c).
21. State a definition of central, obstructive, and mixed sleep apnea (1a, 1b, 2c).
22. Summarize the factors that cause the pathophysiology that is associated with OSA & CSA (1a, 1b, 2c).
23. List and detail the parameters typically monitored during a polysomnogram (1a, 1b, 2c).
24. Evaluate the importance of identifying sleep-related breathing disorders in subjects with pre-existing lung disease (1a, 1b, 2c).
25. List and determine the types of subjects who need sleep studies (1a, 1b, 2c).
26. List the indications for exercise/stress testing (1a, 1b, 2c).
27. List the five cardiac parameters that are measured with exercise/stress testing (1a, 1b, 2c).

RSPT 2210 - Cardiopulmonary Disease

General

Course Key
767

Course Rubric
RSPT

Course Number
2210

Course Title
Cardiopulmonary Disease

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Etiology, pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Recommended Prerequisites: RSPT-2139 and RSPT-2414

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take rspt-2139 rspt-2414;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 2210 and RSPT 2425

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Analyze the etiology, pathophysiology, clinical manifestations, and management of cardiopulmonary disorders; and compare cardiopulmonary disorders.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the etiology, pathophysiology, clinical manifestations, and management of cardiopulmonary disorders and the ability to compare cardiopulmonary disorders by
    a. describing the process of obtaining patient history (1a, 1b, 2c);
    b. describing physical assessment techniques (1a, 1b, 2c);
    c. analyzing physical findings for various disease processes (1a, 1b, 2c);
    d. describing the normal chest x-ray (1a, 1b, 2c);
    e. analyzing radiographic findings for various disease processes (1a, 1b, 2c);
    f. describing normal values for fluids and electrolytes (1a, 1b, 2c);
    g. describing normal water balance (1a, 1b, 2c);
    h. analyzing signs and symptoms of volume excess/deficit (1a, 1b, 2c);
    i. analyzing signs and symptoms of electrolyte imbalance (1a, 1b, 2c);
    j. describing normal laboratory findings (1a, 1b, 2c);
    k. analyzing abnormal laboratory findings (1a, 1b, 2c);
    l. describing hemodynamic monitoring methods (1a, 1b, 2c);
    m. describing indications for hemodynamic monitoring (1a, 1b, 2c);
    n. describing hazards of hemodynamic monitoring (1a, 1b, 2c);
    o. analyzing hemodynamic findings for various disease processes (1a, 1b, 2c);
    p. defining various disease processes (1a, 1b, 2c);
    q. listing causes of various disease processes (1a, 1b, 2c);
    r. describing the pathophysiology of various disease processes (1a, 1b, 2c);
    s. describing the clinical picture of various disease processes (1a, 1b, 2c);
    t. describing the treatment of various disease processes (1a, 1b, 2c);
    u. completing four pulmonary pathology computer programs (1a, 1b, 2c);

RSPT 2233 - Respiratory Care Case Management

General

Course Key
12153

Course Rubric
RSPT

Course Number
2233

Course Title
Respiratory Care Case Management

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Investigation, organization, and presentation of case studies.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): RSPT 2139 and RSPT 2414

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Prepare a detailed medical history including physical and radiological findings; outline the patient's disease process; describe the application of respiratory care to the case; and present a detailed case study.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to obtain and analyze the etiology, pathophysiology, clinical manifestations, and management of a cardiopulmonary disease and to present as a case study via an oral and visual presentation that includes PowerPoint by
    a. identifying appropriate medical research topics (1a, 1b, 2c, 2e);
    b. locating appropriate medical reference materials from a variety of media, one of which has to be from a peer reviewed internet source (1a, 1b, 2c, 2e);
    c. locating appropriate medical information from the patient's medical record while maintaining patient confidentiality (1a, 1b, 2c, 2e);
    d. analyzing physical findings for various disease processes (1a, 1b, 2c);
    e. analyzing radiographic findings for various diseases processes (1a, 1b, 2c);
    f. analyzing abnormal laboratory findings (1a, 1b, 2c);
    g. defining various disease processes (1a, 1b, 2c);
    h. listing causes of various disease processes (1a, 1b, 2c);
    i. describing the pathophysiology of a disease process (1a, 1b, 2c);
    j. describing the clinical picture of a disease process (1a, 1b, 2c);
    k. describing the treatment of a disease process (1a, 1b, 2c);
    l. composing a detailed medical case study (1a, 1b, 2c, 2e);
    m. presenting a detailed medical case study (1a, 1b, 2c, 2e);
    n. composing a detailed medical history (1a, 1b, 2c, 2e);
    o. presenting a detailed medical history (1a, 1b, 2c, 2e);
    p. composing a medical application to treat a disease process (1a, 1b, 2c, 2e);
    q. presenting a medical application to treat a disease process (1a, 1b, 2c, 2e);
    r. listening to other presentations throughout course (1a, 1b, 2c);
    s. questioning other presenters to promote group discussion (1a, 1b, 2c);
    t. composing questions to cover material presented (1a, 1b, 2c, 2e);

RSPT 2266 - Practicum-Respiratory Care Therapy(ist)

General

Course Key
399

Course Rubric
RSPT

Course Number
2266

Course Title
Practicum (or Field Experience) - Respiratory Care Therapy/Therapist

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Recommended Prerequisite: RSPT-1267

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take rspt-1267;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate the ability to observe and interact in the hospital workplace by
    a. performing the steps for administering chest physiotherapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating various breathing exercises (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing the steps for administering trachea care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. performing the steps for endotracheal suctioning (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. performing the steps for bedside pulmonary function testing (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. performing the steps for drawing arterial blood gases (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. performing the steps for arterial line sampling (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. performing manual resuscitation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
2. Describe the components to mechanical ventilation and apply it to the ventilated patient by
    a. performing the steps for ventilator monitoring (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. performing the steps for ventilator initiation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing the steps for ventilator change out (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. performing the steps for ventilator transport (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. describing the applications of PEEP (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. describing the applications of IMV and SIMV (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. describing the applications of CPAP (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
3. Complete all computer and book simulations assigned by
    a. completing clinical computer simulation #1-CPR (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. completing clinical computer simulation #2-ARDS (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. completing computer clinical simulation #3-Weaning (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. completing clinical computer simulation #4-Trauma (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. completing clinical computer simulation #7-Edema (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. completing clinical computer simulation #9-Post Op Care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. completing RTR book clinical simulation #1 (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. completing RTR book clinical simulation #3 (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. completing RTR book clinical simulation #4 (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. completing RTR book clinical simulation #10 (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    k. completing CAI program for the PB7200-options (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

l. completing CAI program for the PB7200-expanded keyboard (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

m. completing CAI program for the Servo 300 (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

4. Complete required training and professional credits for the hospital setting by
    a. completing the TCC CPR recertification (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. completing the required number of professional credits (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

RSPT 2267 - Practicum-Respiratory Therapy

General

Course Key
416

Course Rubric
RSPT

Course Number
2267

Course Title
Practicum - Respiratory Care Therapy/Therapist

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student. Recommended Prerequisite: RSPT-2266

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take rspt-2266;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 1267

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the components to mechanical ventilation and apply it to the ventilated patient by
    a. performing the steps for ventilator monitoring (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. performing the steps for ventilator initiation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing the steps for ventilator change out (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. performing the steps for ventilator transport (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. describing the applications of PEEP (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. describing the applications of SIMV (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. describing the applications of CPAP (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
2. Complete each book simulation assigned by
    a. completing RTR book clinical simulations (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
3. Complete required training and professional credits for the hospital setting by
    a. completing the TCC American Heart Association ACLS course (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. completing the required number of professional credits (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. completing the NBRC written self-assessment exam (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

RSPT 2353 - Neonatal/Pediatric Cardiopulmonary Care

General

Course Key
14695

Course Rubric
RSPT

Course Number
2353

Course Title
Neonatal and Pediatric Cardiopulmonary Care

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) A study of neonatal and pediatric cardiopulmonary care. Recommended Prerequisites: RSPT-2210 and RSPT-2425

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RSPT-2210 RSPT-2425;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 2266

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe fetal development and transition to extrauterine life; assess maternal and fetal history; modify therapy to neonatal/pediatric patients; describe the etiology, pathophysiology, clinical manifestations, and management of neonatal/pediatric disorders; and analyze, interpret, and apply patient data in selective patient care settings.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe all of the techniques used in the resuscitation of the newborn infant (1a, 1b, 2c).
2. Describe the etiology, clinical signs, pathophysiology, and treatment of assigned diseases and syndromes of the infant/pediatric patient (1a, 1b, 2c).
3. Describe the development of the fetal lung and the changes that occur at birth in fetal circulation (1a, 1b, 2c).
4. Describe the etiology, clinical signs, pathophysiology, and treatment of various cardiac anomalies (1a, 1b, 2c).
5. Describe clearance of fetal lung liquid and aeration of the lung at birth (1a, 1b, 2c).
6. Describe all of the possible techniques of assessing oxygenation in the newborn (1a, 1b, 2c).
7. Describe various changes that occur in the newborn during and after the delivery by
    a. describing the APGAR method on neonatal evaluation (1a, 1b, 2c);
    b. describing production and loss of body heat in the newborn (1a, 1b, 2c);
    c. describing periodic breathing and apnea (1a, 1b, 2c);
    d. describing postnatal growth and development of the lung (1a, 1b, 2c);
    e. describing pulmonary physiology as it applies to infants and neonates (1a, 1b, 2c);
8. Identify abnormal conditions and disorders in the newborn/infant by
    a. describing the causes and risk factors of hyperbilirubinemia (1a, 1b, 2c);
    b. describing the 5 most common signs of respiratory distress in the newborn (1a, 1b, 2c);
    c. describing normal and abnormal neurological conditions and development in the newborn (1a, 1b, 2c);
    d. describing the clinical signs and treatment of various metabolic disorders in the newborn infant (1a, 1b, 2c);
    e. describing the clinical signs and treatment for the 4 types of hypoxia (1a, 1b, 2c);
    f. describing the normal and abnormal infant chest x-ray (1a, 1b, 2c);
    g. describing the signs, risk factors, and treatment of infection in the newborn (1a, 1b, 2c);
9. Describe factors that determine high risk status and methods of treatment before and after birth (1a, 1b, 2c).
10. Describe services provided by level 1, 2, and 3 nurseries (1a, 1b, 2c).
11. Describe basic respiratory procedures performed on the infant/newborn patient by
    a. describing the technique of intubation of the infant (1a, 1b, 2c);
    b. describing the technique, equipment, and hazards of suctioning a newborn infant (1a, 1b, 2c);
    c. describing the techniques, indications, and hazards of CPT in the newborn infant (1a, 1b, 2c);
    d. describing the technique and hazards of different oxygen administration in the newborn infant (1a, 1b, 2c);
    e. describing the technique of transcutaneous monitoring of oxygen and CO2 in the newborn (1a, 1b, 2c);

f. describing the use of self-inflating and non-self-inflating resuscitator bags in infants (1a, 1b, 2c);

12. Identify and classify different types of ventilators by

a. defining what is meant by optimal CPAP (1a, 1b, 2c);

b. describing the use, set up, controls, and alarms on the Sechrist Ventilator (1a, 1b, 2c);

c. describing the setup, controls, and alarms on the Baby Bird Ventilator (1a, 1b, 2c);

d. describing the setup, controls, and alarms on the Infant Star Ventilator (1a, 1b, 2c);

e. describing the techniques, clinical application, monitoring, weaning, and hazards of C.D.P. and CPAP (1a, 1b, 2c);

f. describing various techniques, physiological effect, and the advantages of high frequency ventilators (1a, 1b, 2c);

13. Complete the assigned MEDED series in the CLC.

RSPT 2414 - Mechanical Ventilation

General

Course Key
14690

Course Rubric
RSPT

Course Number
2414

Course Title
Mechanical Ventilation

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). The study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics.
Recommended Prerequisites: RSPT-1240

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take RSPT-1240;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 2210 and RSPT 2425

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe procedures for mechanical ventilation as related to spontaneous and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics; explain indications, complications, and physiologic effects/principles of mechanical ventilation; and apply initiation, management, and weaning of ventilatory support.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate competence in the theory and practice of mechanical ventilation, including indications, complications, and physiologic effects, ventilator classification, methods, principles, and operational characteristics. Emphasis will be placed on ventilator initiation, management, and weaning from ventilatory support by

a. listing indications for mechanical ventilation (1a, 1b, 2c);

b. defining respiratory failure (1a, 1b, 2c);

c. describing the physiology of respiratory failure (1a, 1b, 2c);

d. describing criteria for establishing CMV (1a, 1b, 2c);

e. describing the effects of CMV on different systems of the body (1a, 1b, 2c);

f. describing complications of CMV (1a, 1b, 2c);

g. determining when CMV is indicated in simulated situations (1a, 1b, 2c);

h. describing psychological considerations to be addressed in critically ill patients (1a, 1b, 2c);

i. confirming general care considerations to be addressed in critically ill patients (1a, 1b, 2c);

j. describing indications, actions, and side effects of drugs used during CMV (1a, 1b, 2c);

k. describing indications, hazards, and effects of various modes of ventilation (1a, 1b, 2c);

l. evaluating the weaning process (1a, 1b, 2c);

m. comparing different modes of weaning (1a, 1b, 2c);

n. determining when weaning is indicated in simulated situations (1a, 1b, 2c);

o. explaining monitoring procedures for I&O, weight, and temperature (1a, 1b, 2c);

p. explaining monitoring techniques employed with ventilation (1a, 1b, 2c);

q. demonstrating techniques for troubleshooting ventilator problems (1a, 1b, 2c);

r. demonstrating techniques for troubleshooting patient problems (1a, 1b, 2c);

s. demonstrating the ability to perform ventilator check (1a, 1b, 2c);

t. identifying various modes of ventilation (1a, 1b, 2c);

u. differentiating different types of ventilators (1a, 1b, 2c);

v. evaluating advantages and disadvantages of different types of ventilators (1a, 1b, 2c);

w. classifying ventilators (1a, 1b, 2c);

x. demonstrating the steps involved in assessing ventilator readiness (1a, 1b, 2c);

y. justifying appropriate ventilator settings in simulated situations (1a, 1b, 2c);

z. demonstrating the ability to calculate and evaluate volumetrics (1a, 1b, 2c);

aa. demonstrating the ability to calculate and evaluate effective compliance (1a, 1b, 2c);

ab. demonstrating the ability to assemble and operate selected ventilators (1a, 1b, 2c).

RSPT 2425 - Cardiopulmonary Diagnostics

General

Course Key
14679

Course Rubric	Course Number	Course Title
RSPT	2425	Cardiopulmonary Diagnostics

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). A study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessments. Recommended Prerequisites: RSPT-2139 and RSPT-2414

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take RSPT-2139 RSPT-2414;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): RSPT 1240

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the methods, standards, and purpose of performing pulmonary function testing including use of equipment; identify common cardiac dysrhythmias; interpret patient data including physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient; and apply data to evaluate cardiopulmonary disorders.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate competence in pulmonary function testing, blood gas analysis, quality control, and noninvasive monitors by
    a. identifying airway obstruction using FVC and FEV1 (1a, 1b, 2c);
    b. differentiating between obstruction and restriction as causes of reduced vital capacity (1a, 1b, 2c);
    c. distinguishing between large and small airway obstruction using flow volume curves (1a, 1b, 2c);
    d. determining whether there is significant response to bronchodilators (1a, 1b, 2c);
    e. recognizing abnormal values for airway resistance and compliance (1a, 1b, 2c);
    f. determining whether spirometry is acceptable and reproducible (1a, 1b, 2c);
    g. describing the measurement of lung volumes using the open and closed circuit methods (1a, 1b, 2c);
    h. explaining the advantages of measuring lung volumes using the body plethysmograph (1a, 1b, 2c);
    i. calculating residual volume, total lung capacity, functional residual capacity, and related lung volumes (1a, 1b, 2c);
    j. identifying uneven distribution of gas in the lungs by single or multiple breath nitrogen techniques (1a, 1b, 2c);
    k. explaining different diffusing capacity measurements made using single breath and steady state methods (1a, 1b, 2c);
    l. differentiating between obstructive and restrictive diseases as causes of decreased diffusing capacity (1a, 1b, 2c);
    m. listing indications, advantages, and complications of arterial lines (1a, 1b, 2c);
    n. demonstrating drawing and analyzing blood samples from arterial lines (1a, 1b, 2c);
    o. calculating A-vDO2 (1a, 1b, 2c);
    p. calculating shunt (1a, 1b, 2c);
    q. describing the parts, operation, types, and usage of spirometry equipment (1a, 1b, 2c);
    r. demonstrating obtaining, calculating, and interpreting tests of simple spirometry (1a, 1b, 2c);
    s. describing principles of operation of blood gas electrodes (1a, 1b, 2c);
    t. describing the quality assurance for blood gas machines (1a, 1b, 2c);
    u. defining minute ventilation (1a, 1b, 2c);
    v. defining minute alveolar ventilation (1a, 1b, 2c);
    w. calculating minute ventilation and minute alveolar ventilation (1a, 1b, 2c);
    x. describing the significance, normal values, and abnormal values for minute and alveolar ventilation (1a, 1b, 2c);
    y. calculating types of deadspace (1a, 1b, 2c);
    z. listing causes and significance of deadspace disease (1a, 1b, 2c);
    aa. describing normal values, significance, and pathologic changes for different types of V/Q units (1a, 1b, 2c);
    ab. calculating the VD/VT ratio (1a, 1b, 2c);
    ac. calculating the A-a gradient (1a, 1b, 2c);
    ad. calculating the a/A ratio (1a, 1b, 2c);
    ae. identifying normal and abnormal waveforms for end tidal CO2 (1a, 1b, 2c);
    af. calculating the anion gap to diagnose the cause of metabolic acidosis (1a, 1b, 2c);
    ag. identifying various radiological techniques to assess various pulmonary diseases (1a, 1b, 2c);
    ah. utilizing metabolic studies to assess nutritional status (1a, 1b, 2c);
    ai. describing normal function of the one, two, and three bottle chest drainage systems (1a, 1b, 2c);
    aj. troubleshooting the one, two, and three bottle chest drainage systems (1a, 1b, 2c).

RSTO 1304 - Dining Room Service

General

Course Key
9627

Course Rubric	Course Number	Course Title
RSTO	1304	Dining Room Service

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Introduces the principles, concepts, and systems of professional table service. Topics include dining room organization, scheduling, and management of food service personnel.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Recommended Prerequisite(s): RSPT 2139 and RSPT 2414

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and utilize equipment and supplies used in table service; specify the types of table service and the serving sequence for each type of service; properly prepare dining room and side station for service; explain the relationship of wait staff to customers and their perception of the establishment; and employ principles of dining room organization, scheduling, and management of food service personnel.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Acknowledge the importance of dining room service by
    a. identifying the sources of income for servers (1a, 1b);
    b. explaining the factors that affect a server's income (1a, 1b);
    c. explaining the relationship between wait staff and customers (1a, 1b);
    d. describing the laws of tip reporting (1a, 1b);
2. Describe the importance of sanitation and appearance in the dining room by
    a. demonstrating personal care sanitation principles for servers (1b, 2b);
    b. demonstrating side work (1b, 2b);
    c. demonstrating sanitation principles in dining room (1b, 2b);
    d. demonstrating sanitation principles for serving food (1b, 2b);
3. Demonstrate proper place/table settings by
    a. demonstrating a properly set table for any meal period (1b, 2b);
    b. demonstrating various napkin folds (1b, 2b);
    c. differentiating between various service and glassware (1b, 2b);
4. Demonstrate styles of service by
    a. demonstrating the service of food and beverages with the following styles of service: butler, American, English, French, and buffet (1b, 2b);
    b. demonstrating the sequence of service (1b, 2b);
    c. demonstrating preparation of the side station for service (1b, 2b);
5. Demonstrate proper beverage service by
    a. differentiating between various wines (1a, 1b);
    b. differentiating between proper serving temperatures of wines (1a, 1b);
    c. demonstrating proper opening, service of wines, and sparkling wine (1b, 2b);
    d. comprehending legal responsibilities of serving alcohol (1a, 1b, 1c);
6. Explain principles of dining room organization by
    a. creating a dining room staffing schedule (1a, 1b, 2a, 2d);
    b. explaining management handling of situations surrounding customers (1a, 1b, 1c);
    c. explaining management handling of situations surrounding dining room employees (1a, 1b, 1c);

RSTO 1313 - Hospitality Supervision

General

Course Key
11785

Course Rubric	Course Number	Course Title
RSTO	1313	Hospitality Supervision

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Fundamentals of recruiting, selection, and training of food service and hospitality personnel. Topics include job descriptions, schedules, work improvement, motivation, applicable personnel laws and regulations. Emphasis on leadership development.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss the role of the supervisor including obligations to owners, customers, and employees; apply management theories and principles to the hospitality environment; identify and discuss principles of communication; develop effective job descriptions, training plans, and evaluation instruments; and relate principles of leadership.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the role of the supervisor in hospitality operations (1a, 1b).
2. Demonstrate an understanding of the importance of effective communication (1a, 1b).
3. Demonstrate an understanding of the communication process—effective listening, speaking, and writing skills (1a, 1b).
4. Apply techniques to develop and enhance an effective discipline program, administering discipline, and progressive discipline programs (1a, 1b).
5. Identify supervisory concerns, labor shortage, Equal Opportunity laws, sexual harassment, substance abuse, and working with employee unions (1a, 1b).
6. Apply techniques to manage conflict (1a, 1b).
7. Develop effective job descriptions, training plans, and evaluation instruments (1a, 1b, 3c).
8. Apply effective time management techniques, analyzing time, delegating, and using management tools and weekly planning guides (1a, 1b).

RSTO 1319 - Viticulture and Enology

General

Course Key
12180

Course Rubric	Course Number	Course Title
RSTO	1319	Viticulture and Enology

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) A study of the growing regions, production, processing, and distribution of domestic and international wines. Topics include types of wine grapes, varieties of wine, proper storage procedures, and the techniques of proper wine service.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify types of wine grapes, their growing regions, and the wine varieties they produce; discuss the history of wine production; explain storage procedures for the different types of wines; recognize requisite pieces of equipment; and relate proper serving techniques.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand the importance of wine, how it is made, why all wines taste different, and the health aspects of wine (1a, 1b).
2. Analyze international grapes including Chardonnay, Pinot Noir, Cabernet, Syrah and Merlot (1a, 2a, 2e).
3. Understand and know the role of the sommelier, the dining room, and wine cellar management and research (1a, 1b, 1c).
4. Analyze sparkling wines and how they are made and stored (1a, 2a).
5. Understand the importance of wines made from black grapes (1a, 1b).
6. Know how spirits and liqueurs are made and what food to pair with them (1a, 1b).

RSTO 1325 - Purchasing for Hospitality Operations

General

Course Key
7532

Course Rubric	Course Number	Course Title
RSTO	1325	Purchasing for Hospitality Operations

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage, management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle. (Licensure/Certification Agency: American Culinary Federation Educational Institute, Council on Hotel, Restaurant, and Institutional Education)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain market factors affecting cost and availability of goods including seasonality, supply and demand, distribution channel costs, and quality levels; describe the mechanics of purchasing including food and supply sources, formal and informal bid procedures, online computer purchasing, and legal and ethical considerations; explain inspection and grading of foods and the various designations of quality; and conduct yield and quality tests. Write effective purchase specifications; conduct proper receiving procedures assuring conformity of goods with specifications, prices with quotations, and quantities received with quantities ordered; and explain inventory management principles including stock rotation, proper storage conditions, and effective issue procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of foundational concepts of purchasing by
    a. defining purchasing (1a, 1b);
    b. explaining why purchasing is important (1a, 1b);
    c. listing objectives of effective purchasing (1a, 1b);
    d. identifying key purchasing tasks (1a, 1b);
    e. identifying the regulatory concerns that affect purchasing (1a, 1b);
    f. identifying the ethical concerns that affect purchasing (1a, 1b);

2. Demonstrate an understanding of the purchasing process by
    a. explaining the importance of accurately following purchasing procedures (1a, 1b);
    b. giving examples of quality requirements (1a, 1b);
    c. explaining the importance of purchasing the correct quantities (1a, 1b);
    d. identifying the methods of ordering product (1a, 1b);
    e. identifying procedures for selecting suppliers (1a, 1b);
    f. explaining the basics of proper receiving and storage (1a, 1b);

3. Demonstrate an understanding of the important elements to determine quality requirements by
    a. explaining the basic elements of quality requirements (1a, 1b);
    b. explaining the economics of quality (1a, 1b);
    c. defining purchase specifications (1a, 1b);
    d. explaining the role of the purchasing staff in purchase specifications (1a, 1b);
    e. explaining the role of suppliers regarding purchase specifications (1a, 1b);
    f. identifying contents of a purchase specifications (1a, 1b);
    g. defining the procedures for implementing a purchase specification (1a, 1b);

4. Demonstrate an understanding of the basics of determining purchasing quantities by
    a. explaining the importance of correctly purchasing the right quantities (1a, 1b, 2d);
    b. identifying the problems that can be caused by improper quantities (1a, 1b);
    c. defining the factors that affect purchase quantities (1a, 1b);
    d. identifying the traditional purchasing methods (1a, 1b);
    e. explaining the importance of understanding product yield (1a, 1b);
    f. creating a product yield analysis (1a, 1b, 2c);
    g. describing the concept of make or buy analysis and its effects on product cost (1a, 1b);
    h. identifying who is responsible for a make or buy analysis (1a, 1b);
    i. defining the steps in a make or buy analysis (1a, 1b);
    j. creating a make or buy analysis (1a, 1b, 1c, 2a, 2c);

5. Demonstrate an understanding of basic price considerations as they relate to purchasing by
    a. explaining what determines a seller's price (1a, 1b);
    b. describing the traditional buyer's regarding price (1a, 1b);
    c. explaining the less traditional buyer's views regarding price (1a, 1b);
    d. explaining the effects of price reductions on purchasing decisions (1a, 1b);
    e. distinguishing the different pricing formulas (1a, 1b);

6. Demonstrate an understanding of receiving by
    a. identifying the personnel involved in receiving (1a, 1b);
    b. explaining the concept of storage space as it is related to receiving (1a, 1b);
    c. explaining the basic receiving procedures (1a, 1b);

7. Demonstrate an understanding of proper storage by
    a. identifying the personnel that are involved in storage (1a, 1b);
    b. explaining the different types of storage areas (1a, 1b);
    c. explaining the tools and equipment that are involved with storages (1a, 1b);
    d. explaining the records that are utilized in storage (1a, 1b);

8. Demonstrate an understanding of accounting as it is related to the purchasing process by
    a. explaining the importance of documentation in the purchasing process (1a, 1b);
    b. explaining the importance of communication between accounting and suppliers (1a, 1b);
    c. describing various payment policies (1a, 1b);
    d. explaining the use of petty cash purchases (1a, 1b);

RTVB 1302 - Computer Applications Media Production

General

Course Key
12728

Course Rubric	Course Number	Course Title
RTVB	1302	Computer Applications Media Production

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Technical Local Need

Description
(3-2-4). Computer applications for audio, video, graphics, budgets, and scripts in media productions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Operate computer workstations for audio/video editing systems and 2-D animation; outline a budget spreadsheet; and format a script.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the hardware and software components of a computer system by
    a. explaining computer terminology (1a, 1b, 2e);
    b. describing software operating systems and applications (1a, 2c, 2e);
    c. identifying peripherals (1a, 2c, 2e);
    d. distinguishing principles of computer components operations (1b, 2e);
    e. formulating a computer system based on software requirements (1a, 1b, 2a, 2c, 2d, 2e);
2. Operate computer applications by
    a. producing files (1a, 1b, 2a, 2c, 2e);
    b. saving files (1a, 1b, 2a, 2c, 2e);
    c. creating projects (1a, 1b, 2a, 2c, 2d, 2e);
    d. manipulating projects (1a, 1b, 2a, 2c, 2d, 2e);
    e. exporting projects to storage media (1a, 1b, 2a, 2c, 2e);
    f. demonstrating effective file management (1a, 1b, 2e);
    g. preparing projects for a variety of presentation formats (1a, 1b, 2c, 2e);
    h. practicing responsible internet security and management practices (1b, 1c, 2e);
3. Produce computer based word processing, spreadsheet, and presentation projects by
    a. preparing media business communication documents (1a, 1b, 2c, 2e);
    b. creating slide based presentation programs (1a, 1b, 2c, 2e);
    c. employing principles of basic graphic design (1a, 1b, 2c, 2e);
    d. manipulating images, animation, music, and audio (1a, 1b, 2c, 2e);
    e. explaining design process (1a, 1b, 2c, 2e);
    f. applying mathematical formulas (1a, 1b, 2a, 2c, 2e);
4. Edit audio and video projects by
    a. selecting images, footage, and audio elements for projects (1a, 1b, 2d, 2c);
    b. importing files into projects (1a, 1b, 2c, 2e);
    c. employing creative thinking to plan and create comprehensive visual and aural stories and editing footage appropriately, solving problems as they arise (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. editing clips and production elements (1b, 2c, 2d, 2e);
    e. manipulating clips and production elements (1b, 2c, 2d, 2e);
    f. exporting projects for media storage and presentation (1b, 2c, 2d, 2e);
5. Collaborate with others in a shared facility learning environment by
    a. managing computer resources in a shared lab environment (1b, 1c, 2a, 2b, 2c, 2e);
    b. cooperating with staff and other students to ensure equitable distribution of lab materials and available storage space (1b, 1c, 2a, 2b, 2c, 2e);
    c. sharing knowledge with other students and learning from others in a collaboration of ideas and techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. practicing responsible self-management to keep computer lab facilities and resources operational (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
6. Evaluate projects by
    a. critiquing student assignments (1a, 1b, 1c, 2a, 2b, 2c);
    b. justifying analysis (1a, 1b, 1c, 2a, 2b, 2c);
    c. assembling a portfolio of completed projects (1a, 1b, 1c, 2a, 2b, 2c, 2e);

RTVB 1321 - TV/Video Field Production

General

Course Key
12732

Course Rubric	Course Number	Course Title
RTVB	1321	TV/Video Field Production

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Video field camera set up and operation for broadcast and digital media. Incorporates basic editing and field audio techniques.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Set up and operate field cameras, tripods, audio equipment, field lighting instruments, and image acquisition; outline aesthetic concepts relating to visual images; classify and produce basic camera shots; summarize and demonstrate key concepts of lighting and audio; and edit storylines.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the process of creating television field productions by
    a. examining the TV field production system (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. identifying the jobs performed on a TV field production shoot (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. describing the process of creating television programs in the field (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. identifying the principles of planning a television field production (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. developing time management skills to maximize field production time (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. explaining the steps in the production process (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
2. Demonstrate the skills necessary to operating equipment for single camera television production by
    a. operating TV field cameras (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. applying effective picture composition techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. identifying field camera mounting equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. applying effective camera movement techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. identifying field lighting instruments (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. operating field lighting instruments (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. identifying videotape and signal formats for field acquisition (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. operating field audio production equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. identifying battery and DC power formats for TV field equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. demonstrating proper camcorder operating techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    k. demonstrating proper field video monitor operating techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    l. assisting in the operation of all TV field equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
3. Demonstrate an understanding of the technical processes of audio and video signal applications by
    a. examining camcorder recording systems (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    b. describing how light is transduced into an electronic signal (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. explaining the function of white balance (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    d. explaining the function of gain in video and audio applications on the field camera (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    e. differentiate the qualities of light sources for the camera operator (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    f. examining field audio recording systems for the camera operator (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    g. examining techniques to control TV field sound recording (1a, 1b, 1c, 2a, 2c, 2d, 2e);
4. Perform the preproduction functions required for shooting single camera television programs in the field by
    a. preparing scripts for field television productions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. conceptualizing TV program ideas (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. applying creative field lighting techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. explaining the elements of a camera slate (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. describing the variety of shooting styles (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. writing a TV script (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. demonstrating the ability to properly check out and return field production equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. preparing materials to be used for a production or exercise (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. producing field television programs and exercises (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
5. Perform the production functions required for shooting single camera television programs in the field by
    a. practicing safe operations with equipment and personnel in the field (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. serving as TV field crewmember in every position required using learned skills (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing as talent on television productions as necessary (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. operating camcorders properly (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. operating audio equipment properly (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. directing field television productions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. serving as grip (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. communicating effectively with production team members (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
6. Complete single camera television field productions by
    a. analyzing television production program elements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. critiquing personal production performance as a director (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. critiquing personal production performance as a producer (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. delivering completed television field production assignments (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

RTVB 1347 - Audio Production II

General

Course Key
15218

Course Rubric	Course Number	Course Title
RTVB	1347	Audio Production II
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Audio production theories regarding multitrack recording, studio live production, and equipment operation. Required Prerequisite: COMM 2303

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # Take COMM-2303(14415) or RTVB-1309;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply techniques of multitrack recording and editing; plan and execute live recordings; and display mastery of studio equipment operation.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of terminology and principles of acoustics, sound, and audio by
    a. explaining the physical characteristics of human hearing (1a, 1b, 1c);
    b. describing hearing loss and root causes of hearing loss (1a, 1b, 1c);
    c. identifying principles of the physics and psychophysics of sound (1a, 1b, 1c);
    d. distinguishing elements of acoustics and psychoacoustics (1a, 1b, 1c);
    e. exploring the principles of studio design (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. identifying the qualities of an ergonomic control room design (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
2. Demonstrate an understanding of audio acquisition equipment by
    a. explaining the performance characteristics of audio transducers (1b, 2e);
    b. defining the operating principles of microphones (1a, 1b, 2a, 2c, 2e);
    c. exploring the variety and classification of microphones (1a, 1b, 2b, 2d, 2e);
    d. explaining effective microphone placement (1a, 1b, 2b, 2d, 2e);
3. Produce audio projects by
    a. explaining audio signal flow (1a, 1b, 2b, 2d, 2e);
    b. exploring audio console and mixer design (1a, 1b, 2b, 2d, 2e);
    c. operating analog and digital audio recording equipment (1a, 1b, 2d, 2e);
    d. operating computer based audio editing software (1a, 1b, 2b, 2d, 2e);
    e. distinguishing between analog and digital audio sound (1a, 1b, 2b, 2d, 2e);
    f. applying principles for effective audio field production (1a, 1b, 2b, 2d, 2e);
    g. applying principles for music production (1a, 1b, 2b, 2d, 2e);
4. Use signal processing techniques to mix down recording projects by
    a. manipulating sound through signal processors for specific effects (1a, 1b, 2b, 2d, 2e);
    b. defining appropriate loudspeaker selection and placement for monitoring (1a, 1b, 2b, 2d, 2e);
    c. explaining the proper selection and use of headphones (1a, 1b, 2b, 2d, 2e);
    d. maintaining aesthetic perspective in mixing audio (1b, 2c, 2d, 2e);
    e. defining mixing techniques for a music, voice, film, and television applications (1b, 2c, 2d, 2e);
    f. applying criteria for evaluating a mix down project (1b, 2d, 2e);
5. Develop skills and techniques to create audio elements by
    a. explaining techniques of manual audio effects creation (1b, 2c, 2d, 2e);
    b. creating foley effects (1b, 2d, 2c);
    c. explaining principles of sound effects (1b, 2c, 2d, 2e);
    d. manipulating prerecorded sound effects (1b, 2c, 2e);
    e. defining the principles of using music in a production (1b, 2c, 2d, 2e);
    f. explaining the principles of musical underscoring (1b, 2c, 2d, 2e);
    g. employing music loops and music libraries (1b, 2c, 2d, 2e);
6. Demonstrate an understanding of the principles and practices of sound design by
    a. defining audio elements and variables for sound design (1a, 1b, 2d, 2c);
    b. manipulating audio elements for recording human speech (1b, 2c, 2d, 2e);
    c. creating appropriate sound images for a variety of production applications (1a, 1b, 2c, 2e);
    d. editing clips and production elements (1b, 2c, 2d, 2e);
    e. manipulating clips and production elements (1b, 2c, 2d, 2e);
    f. exporting projects for media storage and presentation (1b, 2c, 2d, 2e);
7. Develop critical listening skills to evaluate audio by
    a. evaluating sound qualities (1a, 1b, 2c, 2d, 2e);
    b. judging the audio elements of a production (1a, 1b, 2c, 2d, 2e);
    c. critiquing student assignments (1a, 1b, 1c, 2a, 2b, 2c);
    d. justifying analysis (1a, 1b, 1c, 2a, 2b, 2c);
    e. determining appropriate remedies for audio problems (1a, 1b, 1c, 2a, 2b, 2c);

RTVB 1355 - Radio and Television Announcing

General

Course Key
475

Course Rubric	Course Number	Course Title
RTVB	1355	Radio and Television Announcing

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Radio and television announcing skills such as voice quality, articulation, enunciation, and pronunciation. Includes preparation for on air and voice over positions.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): COMM 2303

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Examine the fields of radio and television announcing; perform as an announcer in situations including public service announcements, commercials, news, and scripts; and provide critical analysis of performances.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the role of the announcer in the media by
    a. identifying the scope of work the announcer performs for a variety of programs (1a, 1b, 1c, 2b, 2c, 2d);
    b. identifying the education and training the announcer undergoes to attain and master necessary announcing skills (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    c. assessing the career pattern of announcers (1a, 1b, 1c, 2b, 2c, 2d);
    d. identifying the ethical responsibilities of the announcer (1a, 1b, 1c, 2b, 2c, 2d);
    e. distinguishing the role of the announcer as communicator (1a, 1b, 1c, 2b, 2c, 2d);
2. Demonstrate an understanding of the major tools used by the announcer by
    a. analyzing broadcast copy (1a, 1b, 1c, 2a, 2b, 2c);
    b. analyzing written punctuation marks (1a, 1b, 1c, 2a, 2b, 2c);
    c. marking copy (1a, 1b, 1c, 2a, 2b, 2c);
    d. reading copy aloud (1a, 1b, 1c, 2a, 2b, 2c);
    e. employing characterization in announcing (1a, 1b, 1c, 2a, 2b, 2c);
    f. performing adlib announcements (1a, 1b, 1c, 2a, 2b, 2c);
3. Analyze voice for performance improvement by
    a. comparing how people speak (1a, 1b, 1c, 2a, 2b, 2c);
    b. defining speech personality (1a, 1b, 1c, 2a, 2b, 2c);
    c. performing diagnostic readings (1a, 1b, 1c, 2a, 2b, 2c);
    d. analyzing personal speech performance (1a, 1b, 1c, 2a, 2b, 2c);
    e. distinguishing pitch and inflection variations in speech (1a, 1b, 1c, 2a, 2b, 2c);
    f. distinguishing volume variations in speech (1a, 1b, 1c, 2a, 2b, 2c);
    g. distinguishing tempo variations in speech (1a, 1b, 1c, 2a, 2b, 2c);
    h. distinguishing vitality or energy variations in speech (1a, 1b, 1c, 2a, 2b, 2c);
    i. distinguishing voice quality variations in speech (1a, 1b, 1c, 2a, 2b, 2c);
    j. exploring breathing exercises for speech (1a, 1b, 1c, 2a, 2b, 2c);
    k. identifying remedies for common voice problems (1a, 1b, 1c, 2a, 2b, 2c);
    l. practicing speech personality improvement exercises (1a, 1b, 1c, 2a, 2b, 2c);
4. Explore pronunciation and articulation issues for the announcer by
    a. discovering regional variations in American speech (1a, 1b, 1c, 2a, 2b, 2c);
    b. defining pronunciation (1a, 1b, 1c, 2a, 2b, 2c);
    c. identifying causes of mispronunciation (1a, 1b, 1c, 2a, 2b, 2c);
    d. defining pronunciation guides (1a, 1b, 1c, 2a, 2b, 2c);
    e. exploring speech sounds of American English (1a, 1b, 1c, 2a, 2b, 2c);
    f. identifying phonetic transcription (1a, 1b, 1c, 2a, 2b, 2c);
    g. defining articulation (1a, 1b, 1c, 2a, 2b, 2c);
    h. identifying articulation problems (1a, 1b, 1c, 2a, 2b, 2c);
5. Distinguish the unique requirements of audio performance for the announcer by
    a. establishing audience rapport (1a, 1b, 1c, 2a, 2b, 2c);
    b. explaining microphone fright (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. developing microphone consciousness (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. discovering how to perform when technicians take a level (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. employing audio performance skills (1a, 1b, 1c, 2a, 2b, 2c);
    f. identifying hand signals for audio performance (1a, 1b, 1c, 2a, 2b, 2c);
6. Distinguish the unique requirements of video performance for the announcer by
    a. establishing on camera rapport (1a, 1b, 1c, 2a, 2b, 2c);
    b. defining microphone consciousness for camera performance (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. developing camera consciousness (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    d. discovering how IFB systems work (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    e. employing on camera performance skills (1a, 1b, 1c, 2a, 2b, 2c);
    f. identifying hand signals for video performance (1a, 1b, 1c, 2a, 2b, 2c);
7. Model a variety of vocal characterizations by
    a. exploring the role of announcer as actor (1a, 1b, 1c, 2a, 2b, 2c);
    b. analyzing copy for performance (1a, 1b, 1c, 2a, 2b, 2c);
    c. performing a variety of commercials (1a, 1b, 1c, 2a, 2b, 2c);
    d. performing a variety of announcements (1a, 1b, 1c, 2a, 2b, 2c);
    e. developing character voices appropriate to script copy (1a, 1b, 1c, 2a, 2b, 2c);
8. Demonstrate an understanding of the role of announcers on interview/talk programs by
    a. defining the principles of effective interview and talk programs (1a, 1b, 1c, 2a, 2b, 2c);
    b. determining how to prepare for interviews (1a, 1b, 1c, 2a, 2b, 2c);
    c. examining how to avoid bias in interviews (1a, 1b, 1c, 2a, 2b, 2c);
    d. discovering how to interact with guests (1a, 1b, 1c, 2a, 2b, 2c);
    e. exploring legal and ethical issues of talk programs (1a, 1b, 1c, 2a, 2b, 2c);
9. Demonstrate an understanding of the role of announcers in news programs by
    a. defining the principles of news programs (1a, 1b, 1c, 2a, 2b, 2c);
    b. determining how to prepare material for news programs (1a, 1b, 1c, 2a, 2b, 2c);
    c. identifying the announcing elements of news reports (1a, 1b, 1c, 2a, 2b, 2c);
    d. determining live audio reporting problems (1a, 1b, 1c, 2a, 2b, 2c);
    e. exploring how to work with a teleprompter (1a, 1b, 1c, 2a, 2b, 2c);
    f. examining TV weather reporting (1a, 1b, 1c, 2a, 2b, 2c);
    g. examining TV news anchoring (1a, 1b, 1c, 2a, 2b, 2c);
    h. examining live TV field reporting (1a, 1b, 1c, 2a, 2b, 2c);
    i. exploring sports announcing (1a, 1b, 1c, 2a, 2b, 2c);
    j. exploring issues of interviewing athletes (1a, 1b, 1c, 2a, 2b, 2c);
    k. examining the role of the play by play announcer (1a, 1b, 1c, 2a, 2b, 2c);
    l. examining the role of the play analyst (1a, 1b, 1c, 2a, 2b, 2c);
10. Demonstrate an understanding of the role of announcers in entertainment programs by
    a. exploring music radio announcing (1a, 1b, 1c, 2a, 2b, 2c);
    b. exploring alternate DJ opportunities (1a, 1b, 1c, 2a, 2b, 2c);
    c. examining entertainment show prep (1a, 1b, 1c, 2a, 2b, 2c);
    d. exploring announcing styles for various music formats (1a, 1b, 1c, 2a, 2b, 2c);

RTVB 2330 - Film and Video Editing

General

Course Key
12736

Course Rubric	Course Number	Course Title
RTVB	2330	Film and Video Editing

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-4). Digital media editing for the preparation and completion of shorts, trailers, documentaries, and features. Required Prerequisite: RTVB-1302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RTVB-1302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Apply script and storyboard to the editing process; apply post-production processes; critique the work of other editors; and use industry-standard editing equipment and software.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the role and function of the editor in media production by
    a. examining jobs in postproduction (1a, 1b, 2a, 2c, 2d, 2e);
    b. defining the work of the editor (1a, 1b, 2a, 2c, 2d, 2e);
    c. defining the work of the assistant editor (1a, 1b, 2a, 2c, 2d, 2e);
    d. exploring the job skills used in postproduction work (1a, 1b, 2a, 2c, 2d, 2e);
    e. examining career patterns of editing professionals (1a, 1b, 2a, 2c, 2d, 2e);
2. Identify the components of the nonlinear editing system by
    a. defining the hardware components required for a NLE system (1a, 1b, 2a, 2c, 2d, 2e);
    b. examining the software requirements for a NLE system (1a, 1b, 2a, 2c, 2d, 2e);
    c. exploring commonalities in graphical user interfaces of NLE software (1a, 1b, 2a, 2c, 2d, 2e);
    d. examining editing workflow using NLE software (1a, 1b, 2a, 2c, 2d, 2e);
3. Demonstrate an understanding of basic editing techniques by
    a. distinguishing appropriate project settings (1a, 1b, 2a, 2c, 2d, 2e);
    b. importing clips into the project (1a, 1b, 2a, 2c, 2d, 2e);
    c. managing clips in bins (1a, 1b, 2a, 2c, 2d, 2e);
    d. adding clips to the timeline (1a, 1b, 2a, 2c, 2d, 2e);
    e. trimming clips on the timeline (1a, 1b, 2a, 2c, 2d, 2e);
    f. managing functions in the project window (1a, 1b, 2a, 2c, 2d, 2e);
    g. editing projects using principles of effective editing (1a, 1b, 2a, 2c, 2d, 2e);
4. Demonstrate an understanding of advanced editing concepts by
    a. capturing video from a videotape source (1a, 1b, 2a, 2c, 2d, 2e);
    b. capturing audio from a videotape source (1a, 1b, 2a, 2c, 2d, 2e);
    c. manipulating audio files (1a, 1b, 2a, 2c, 2d, 2e);
    d. creating titles (1a, 1b, 2a, 2c, 2d, 2e);
    e. applying a variety of image effects (1a, 1b, 2a, 2c, 2d, 2e);
    f. applying a variety of audio effects (1a, 1b, 2a, 2c, 2d, 2e);
    g. employing color correction techniques (1a, 1b, 2a, 2c, 2d, 2e);
    h. editing projects using advanced editing techniques (1a, 1b, 2a, 2c, 2d, 2e);
5. Demonstrate an understanding of data storage and data management issues for NLE systems by
    a. saving projects to a variety of locations (1a, 1b, 2a, 2c, 2d, 2e);
    b. troubleshooting sync problems (1a, 1b, 2a, 2c, 2d, 2e);
    c. importing a variety of file formats (1a, 1b, 2a, 2c, 2d, 2e);
    d. exporting a variety of file formats (1a, 1b, 2a, 2c, 2d, 2e);
    e. managing issues related to HD projects (1a, 1b, 2a, 2c, 2d, 2e);
    f. identifying issues related to finishing a project on a NLE system (1a, 1b, 2a, 2c, 2d, 2e);
    g. identifying issues related to editing film source material on a NLE system (1a, 1b, 2a, 2c, 2d, 2e);
    h. determining techniques of presenting edited material in a variety of menu ordered disk formats (1a, 1b, 2a, 2c, 2d, 2e);
6. Demonstrate an understanding of the historical contributions of editing to the film and video industry by
    a. examining the origins of film editing (1a, 1b, 2a, 2c, 2d, 2e);
    b. examining film editing equipment (1a, 1b, 2a, 2c, 2d, 2e);
    c. exploring film editing workflow (1a, 1b, 2a, 2c, 2d, 2e);
    d. distinguishing between the narrative and documentary film traditions (1a, 1b, 2a, 2c, 2d, 2e);
    e. classifying basic editing transitions (1a, 1b, 2a, 2c, 2d, 2e);
    f. identifying advanced editing techniques (1a, 1b, 2a, 2c, 2d, 2e);
    g. examining the Kuleshov effect (1a, 1b, 2a, 2c, 2d, 2e);
    h. examining historical films for editing techniques and audience impact (1a, 1b, 2a, 2c, 2d, 2e);
7. Demonstrate an understanding of motion graphics applications for presenting edited material by
    a. examining motion graphics software applications (1a, 1b, 2a, 2c, 2d, 2e);
    b. applying principles of design to creating effective motion graphics (1a, 1b, 2a, 2c, 2d, 2e);
    c. manipulating images to creating edited effects (1a, 1b, 2a, 2c, 2d, 2e);
    d. applying motion graphics techniques to titles (1a, 1b, 2a, 2c, 2d, 2e);
8. Evaluate editing projects by
    a. analyzing historical films and programs for editing techniques (1a, 1b, 1c, 2a, 2b, 2c);
    b. critiquing student assignments (1a, 1b, 1c, 2a, 2b, 2c);
    c. justifying analysis (1a, 1b, 1c, 2a, 2b, 2c);
    d. assembling a portfolio of completed personal projects (1a, 1b, 1c, 2a, 2b, 2c, 2e);

RTVB 2343 - Commercial Recording Techniques

General

Course Key
14400

Course Rubric
RTVB

Course Number
2343

Course Title
Commercial Recording Techniques

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1) Advanced concepts and practice in multi-track recording production for the commercial audio recording industry. Note: A granted petition is required for registration. Required Prerequisite(s): COMM-2303 and RTVB-1347

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take RTVB-1347(14398) comm-2303;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): RTVB 1302

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Operate audio production and editing equipment; and coordinate and direct music production projects from booking to post production.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Understand how to manage a successful commercial recording enterprise by
    a. attracting and acquiring clientele (1a, 1c, 2b);
    b. understanding bidding for contract work (1a, 1b, 1c, 2c);
    c. budgeting and scheduling recording sessions (1a, 1b, 1c, 2a, 2c);
2. Produce portfolio-worthy projects by
    a. operating tools used to record and edit audio productions (1a, 1c, 2a, 2c, 2d, 2e);
    b. maintaining equipment used in audio production (1a, 1b, 2a, 2c, 2d, 2e);
    c. working alongside clients to create quality productions (1a, 1b, 1c, 2b, 2c, 2d, 2e);

RTVB 2347 - Electronic Media Business Management

General

Course Key
12247

Course Rubric
RTVB

Course Number
2347

Course Title
Electronic Media Business Management

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Analysis of management principles and development of business plans for media enterprises.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): COMM 2303 and RTVB 1347

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe and analyze media business workflow and department functions including budgeting, facilities/equipment management, and content distribution.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the management challenges of electronic media by
    a. identifying the challenges and uniqueness of broadcast, corporate, and for profit production companies (1b, 2b, 2c);
    b. identifying the challenges and uniqueness of nonprofit production facilities (1b, 2b, 2c);
    c. describing the human relations aspect of managing people (1a, 1b, 1c, 2a, 2b, 2c);
    d. identifying the principles of organizational goals and mission (1a, 2c, 2d);
    e. distinguishing the principles of financial and operational success (1a, 1b, 2a);
2. Demonstrate an understanding of the major operations of a media facility by
    a. identifying the customer for media services (1a, 1b, 2a, 2c);
    b. describing the variety of audiences for media projects (1a, 1b, 2c, 2d);
    c. describing production facilities (1a, 1b, 2d);
    d. describing production equipment (1a, 1b, 2d);
    e. preparing organizational charts for media business models (1a, 1b, 2c, 2d);
    f. describing the relationship of the media department within an organization (1b, 1c, 2c, 2d);
3. Demonstrate an understanding of the process of operating a media business by
    a. preparing media business documents (1a, 1b, 2c, 2d, 2e);
    b. defining business recordkeeping (1a, 1b, 2c, 2d, 2e);
    c. examining basic insurance and liability issues (1a, 1b, 2c, 2d, 2e);
    d. creating budgets for a variety of applications (1a, 1b, 2c, 2d, 2e);
    e. exploring the operational expenses of a media facility (1a, 2a, 2c, 2d);
    f. differentiating equipment purchase versus lease options (1a, 2a, 2c, 2d);
    g. examining the legal responsibilities of a media business (1a, 1b, 2c, 2e);
    h. explaining employment practices (1a, 1b, 2c, 2e);
    i. defining meeting payroll and business accounting practices (2a, 2b, 2d);
4. Demonstrate an understanding of the role and function of sales in media operations by
    a. exploring the relationship between sales and profit (1a, 1b, 2a, 2d, 2c);
    b. creating contracts for production (1a, 1b, 2a, 2c, 2e);
    c. applying the principles of copyright and work for hire (1b, 2c, 2d, 2e);
    d. examining the principles of salesmanship (1b, 2c, 2d, 2e);
    e. explaining the law of contracts (1a, 1c, 2a);
    f. practicing the art of negotiating (1a, 1c, 2a);
    g. exploring the relationship between deadlines and fulfillment (1a, 1c, 2a);
5. Model the creation of a media business by
    a. exploring the process of starting a media business (1a, 1b, 1c, 2a, 2b, 2c);
    b. investigating tax obligations for small business (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. examining principles of business financing (1a, 1b, 1c, 2a, 2b, 2c, 2d);

d. defining intellectual property (1a, 1b, 2a);

e. identifying government contracting procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d);

6. Demonstrate an understanding of the role of ethics in media business operations by

a. defining ethical conduct in business (1a, 1b, 1c, 2a, 2b, 2c, 2d);

b. explaining the employment of legal, accounting, and professional services (1a, 1b, 1c, 2a, 2b, 2c, 2d);

c. examining the role of leadership in business (1a, 1b, 1c, 2a, 2b, 2c, 2d);

d. exploring conflict resolution as a business practice (1a, 1b, 1c, 2a, 2b, 2c);

e. defining criminal behavior in the business place (1a, 1b, 1c, 2a, 2b, 2c, 2d);

f. defining corrupt business practices (1a, 1b, 1c, 2a, 2b, 2c, 2d);

RTVB 2387 - Internship - Radio and Television

General

Course Key
11053

Course Rubric	Course Number	Course Title
RTVB	2387	Internship - Radio and Television
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	0	14

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-14). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the College and the employer. Required Prerequisite: Consent of Coordinator

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Plan the experiences to be gained from an internship by

a. identifying the skills required for a variety of jobs in broadcast, corporate, and for profit production companies (1b, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. identifying the opportunities available for internships in a variety of companies and facilities (1b, 1c, 2b, 2c, 2d);

c. determining the nature of an internship (1a, 1b, 1c, 2a, 2b, 2c);

d. developing an understanding of the relationship between the intern, the sponsoring organization, and the college (1a, 1b, 1c, 2c, 2d);

e. explaining the goals which can be achieved in an internship (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

2. Secure an internship opportunity by

a. identifying a likely internship that will meet the student's goals and requirements (1a, 1b, 1c, 2a, 2b, 2c);

b. applying for available internships (1a, 1b, 2c, 2d, 2e);

c. gaining interviews for appropriate internships (1a, 1b, 2a, 2b, 2c, 2d, 2e);

d. defining internship goals and interests to the internship host (1a, 1b, 2a, 2b, 2c, 2d);

e. arranging an internship schedule and semester plan (1a, 1b, 1c, 2a, 2c, 2d);

f. securing an internship within an organization (1a, 1b, 1c, 2a, 2b, 2c, 2d);

3. Perform on the job training assignments under supervision of a media professional by

a. maintaining a schedule of hours at the internship location (1a, 1b, 2a, 2b, 2c);

b. documenting day to day internship work experiences (1a, 1b, 2a, 2b, 2c);

c. determining how to maximize the internship experience (1a, 1b, 2a, 2b, 2c, 2d, 2e);

d. sharing learning experiences with other interns (1b, 2c, 2a, 2b, 2c, 2d);

e. performing a variety of tasks while working as an intern (1a, 2a, 2c, 2d, 2e);

f. determining how to improve personal job performance at assigned tasks (1a, 1b, 2a, 2b, 2c, 2d, 2e);

g. evaluating personal performance in order to determine how much progress is made toward internship plan goals (1a, 1b, 2c);

4. Demonstrate an understanding of the role and function of a variety of media jobs by

a. observing company employees at their host facility (1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. discussing employment practices at the host facility (1a, 1b, 1c, 2a, 2b, 2c, 2d);

c. determining what skill sets are required for new hire employees (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

d. determining what skill sets are required to maintain certain jobs (1a, 1b, 1c, 2a, 2b, 2c, 2d);

e. determining what employee pay structures are common at the host facility (1a, 1b, 1c, 2a, 2b, 2c, 2d);

f. exploring the possibilities for fulltime, part-time, and freelance employment at the host facility (1a, 1b, 1c, 2a, 2b, 2c, 2d);

5. Develop professional job seeking resources by

a. conducting a job search using networking and internet resources (1a, 1b, 1c, 2a, 2b, 2c);

b. developing a résumé (1a, 1b, 1c, 2a, 2b);

c. preparing a cover letter for a job application (1a, 1b, 1c, 2a, 2b);

d. determining the purpose and structure of a job interview (1a, 1b, 1c, 2a, 2b, 2c);

e. developing job interviewing skills (1a, 1b, 1c, 2a, 2b, 2c, 2d);

f. defining the ethics and legality of a variety of employment practices (1a, 1b, 1c, 2a, 2b, 2c, 2d);

6. Develop a long range career plan by
    a. formulating career goals (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. preparing a portfolio of media professional work (1a, 1b, 1c, 2a, 2c, 2d, 2e);
    c. evaluating personal performance skill set (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. determining the future opportunities available though contacts acquired during the internship (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. analyzing the progress made toward the internship goals (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. defining future career goals (1a, 1b, 1c, 2a, 2b, 2c, 2d);

SCIT 1320 - Physics for Allied Health

General

Course Key
12699

Course Rubric	Course Number	Course Title
SCIT	1320	Physics for Allied Health

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An introduction to physics with emphasis on applications to health related fields of study. Topics include forces, motion, work and energy, fluids, heat, electricity and magnetism, wave motion, sound, electromagnetic radiation, and nuclear radiation. Required Prerequisite: MATH-1314

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE MATH-1314;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain and apply the concepts of measurements, standard units, kinematics, forces, and work as applicable to health fields; demonstrate knowledge of fluid dynamics, electric circuits, electricity and magnetism, optics and optical instrumentation applicable to health fields; describe and apply the relationship of electromagnetic radiation, nuclear radiation, and radioactivity as applied to health fields; and define radioactive isotopes and half-life and summarize their interaction with biological organisms.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Apply the concepts of measurements, standard units, kinematics, forces, and work as applicable to health related fields by
    a. solving problems involving measurements, standard units, kinematics, forces, and work as applicable to health-related fields (1a, 1b, 2c).
2. Demonstrate knowledge of fluid dynamics, electric circuits, electricity and magnetism, optics and optical instrumentation applicable to health related fields by
    a. calculating the answers to problems involving fluid dynamics, electric circuits, electricity and magnetism, optics, and optical instrumentation applicable to health-related fields (1a, 1b, 2c).
3. Describe and apply the relationship of electromagnetic radiation, nuclear radiation, and radioactivity as applied to health related fields by
    a. solving problems involving wavelength, frequency, and energy as they relate to radiation (1a, 1b, 2c);
    b. describing the forms of radiation with which technologists are concerned (1a, 1b, 2c).
4. Differentiate between the electrostatic forces (gravity/weak/strong) (1a, 1b, 2c).
5. Define matter, substance, mixture, compound, element, molecule, atom, subatomic particles, and nuclide (1a, 1b, 2c).
6. Label the locations of the atomic particles on a drawing of the Bohr model of the atom (1a, 1b, 2c).
7. Discuss the composition of the atom by
    a. describing the proton, neutron, electron, and other elemental particles (1a, 1b, 2c);
    b. describing atomic nomenclature (atomic number, mass number, neutron number, element, valence) (1a, 1b, 2c);
    c. identifying the component of the atom that determines its chemical properties (1a, 1b, 2c);
    d. describing electron shells and stability including orbitals/suborbitals, and energy states (1a, 1b, 2c).
8. Define atomic mass and atomic number (1a, 1b, 2c).
9. Name the component of the nucleus that differentiates one isotope of an element from another (1a, 1b, 2c).
10. Describe the properties of electromagnetic radiation (ions and ionization) (1a, 1b, 2c).
11. Differentiate between isotopes, isobars, isotones, and isomers (1a, 1b, 2c).
12. State the relationship of mass and energy in Einstein's equation (1a, 1b, 2c).
13. Demonstrate understanding of electron shells and stability (1a, 1b, 2c).

SCWK 1303 - Ethics for Social Service Professionals

General

Course Key
15219

Course Rubric
SCWK

Course Number
1303

Course Title
Ethics for Social Services Professionals

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Ethical considerations based on social and human services standards. Includes comparison of ethical codes, confidentiality, dual relationships, guidelines for digital counseling, ethical considerations dealing with social media, diversity, and multiculturalism.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Compare and contrast various codes of ethics as they relate to multicultural populations; explain meaning of dual relationships; identify exceptions to confidentiality; and discuss guidelines for digital counseling practice and social media.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate a functional awareness of professional ethics and the necessity of adhering to these standards with clients by
    a. distinguishing and recognizing various professional codes of ethics and common themes (1a, 1b, 2a, 2c, 2d);
    b. defining six basic principles that form the foundation of functioning at the highest level of ethical standards (1a, 1b, 1c, 2a, 2c);
    c. identifying ethical decision-making steps and applying the steps in case examples (1a, 1b, 1c, 2b, 2c);
    d. performing a self-assessment to determine an inventory of attitudes and beliefs about ethical professional issues (1a, 1b, 1c, 2b);
    e. comparing and contrasting ethical actions and unethical actions as a human service professional (1b, 1c, 2b).
2. Demonstrate an understanding of values and the helping relationship by
    a. clarifying values and their role in the professional's work (1b, 1c, 2b, 2c);
    b. exemplifying an understanding of not imposing personal values on clients (1b, 1c, 2b);
    c. distinguishing the legal framework regarding values discrimination (1a, 1b, 2c);
    d. practicing management of value conflicts with clients (1b, 1c, 2b).
3. Demonstrate recognition of client rights and counselor responsibilities by
    a. describing the client's right to give informed consent (1a, 1b, 1c, 2b);
    b. defining and comprehending confidentiality, exceptions to confidentiality, privileged communication, and privacy (1a, 1b, 1c, 2b, 2c);
    c. developing an informed consent for clients being served in the human service arena (1b, 1c, 2a, 2b, 2c);
    d. comprehending the professional's responsibility in keeping adequate records (1a, 1b, 2a, 2c, 2d, 2e);
    e. identifying and dealing with unethical behavior of colleagues (1a, 1b, 1c, 2b).
4. Demonstrate an understanding of multicultural perspectives and diversity issues in the human service profession by
    a. comprehending the challenges of reaching a diverse client population and recognizing the needs of these populations (1a, 1b, 1c, 2b, 2c);
    b. summarizing ethics codes from a diversity perspective while recognizing cultural values and assumptions in helping professions (1a, 1b, 1c, 2b, 2c);
    c. identifying various clients' needs based on culture, ethnicity, sexual orientation, social class, spirituality, disability and age (1a, 1b, 1c, 2b, 2c).
5. Demonstrate an understanding of boundaries and dual relationships in the human services field by
    a. comprehending ethical boundaries between clients and professionals (1a, 1b, 1c);
    b. defining the ethics of dual/multiple relationships and describing how they pose a challenge to professionals (1a, 1b, 1c, 2d);
    c. identifying appropriate management of giving or receiving gifts in the human service relationship (1a, 1b, 1c, 2b);
    d. explaining ethical issues involving sexual attractions to and relationships with clients and legal ramifications of these relationships (1a, 1b, 1c, 2b).
6. Demonstrate an understanding of web counseling practice and broadcast media and the limits of this scope within the human services profession by
    a. evaluating privacy issues with telecommunication devices, social media, and other technological practices (1a, 1b, 1c, 2b, 2d);
    b. comparing direct care service methods to web counseling and defining implications of differences (1a, 1b, 1c, 2b, 2d);
    c. examining advantages and disadvantages of web counseling (1a, 1b, 2c, 2d).

SCWK 2305 - Special Problems of Youth

General

Course Key
8524

Course Rubric
SCWK

Course Number
2305

Course Title
Special Problems of Youth

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). Examination of the special needs of youth and their implications for social service workers delivering services to this population.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify family dynamics which impact youth; explain the psycho-social and physiological effects of different environmental settings on the developmental stages of youth to include social media; discuss the resources available for youth and their families; and demonstrate an awareness of confidentiality laws, client rights, code of ethics, and prevention and intervention modalities for minors.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the concept of juvenile delinquency by
    a. identifying many of the problems of youth in American culture (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. explaining why the treatment of children changed radically after the seventeenth century (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. defining status offender (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. explaining how uniform crime report data are gathered and used (1a, 1b, 2a, 2c);
    e. identifying recent trends in juvenile delinquency (1a, 1b, 1c, 2a, 2b);
    f. explaining the concept of the chronic offender (1a, 1b, 2a, 2c, 2d).
2. Demonstrate an understanding of different complex theoretical models of delinquent behavior by
    a. explaining the theory that delinquency is essentially caused by individual level factors, such as personal choices and decision making, or by psychological and biological factors (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. explaining social theories of delinquency that state that delinquency is caused by children's place in the social structure and/or their relationships with social institutions and processes (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. explaining the theory of delinquency that regards youthful misbehavior as a function of stigma and labeling (1a, 1b, 1c, 2a, 2b, 2c);
    d. explaining theories of delinquency that regard youthful misbehavior as a developmental process (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Demonstrate an understanding of the influences of social, community, and environmental relations on delinquency by
    a. explaining gender relations and their relationship to delinquency (1a, 1b, 2a, 2c);
    b. describing the link between family relationships and juvenile delinquency (1a, 1b, 2a, 2c);
    c. explaining the influence of peers on delinquency (1a, 1b, 1c, 2a, 2b, 2c);
    d. explaining the relationship between education and delinquency (1a, 1b, 1c, 2a, 2b, 2c);
    e. explaining the relationship between drug use and delinquency (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. differentiating between delinquency prevention and delinquency control (1a, 1b, 1c, 2a, 2b, 2c).
4. Demonstrate a general understanding of the juvenile justice system by
    a. tracing the history and development of juvenile justice (1a, 1b, 1c, 2a, 2b, 2c);
    b. explaining the responsibilities and key roles of the police in dealing with juvenile offenders (1a, 1b, 1c, 2a, 2b, 2c);
    c. explaining key issues of the pre-adjudicatory stage of juvenile justice (1a, 1b, 2a, 2b, 2c);
    d. differentiating between community treatment and institutional treatment for juvenile offenders (1a, 2a, 2b, 2c);
    e. explaining some of the different delinquency problems facing other regions of the world (1a, 1b, 2a, 2b, 2c).

SGNL 1401 - Beginning American Sign Language I

General

Course Key
16212

Course Rubric
SGNL

Course Number
1401

Course Title
Beginning American Sign Language I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SGNL 1402 - Beginning American Sign Language II

General

Course Key
15965

Course Rubric
SGNL

Course Number
1402

Course Title
Beginning American Sign Language II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired. Required Prerequisite: SGNL-1401

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SGNL-1401;
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SGNL-1401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SGNL 2301 - Intermediate American Sign Language I

General

Course Key
15966

Course Rubric
SGNL

Course Number
2301

Course Title
Intermediate American Sign Language I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-3) Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore. Required Prerequisite: SGNL-1402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

take SGNL-1402;
Type
Required Prerequisites

10
A Requirement block where all subrequirements are required

take SGNL-1402;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SGNL 2302 - Intermediate American Sign Language II

General

Course Key
15967

Course Rubric
SGNL

Course Number
2302

Course Title
Intermediate American Sign Language II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-3) Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore. Required Prerequisite: SGNL-2301 Required Co-requisite: SLNG-2301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SGNL-2301;
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SGNL-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Take SLNG-2301;
Type
Required Co-requisites

10
A Requirement block where all subrequirements are required

Take SLNG-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 1202 - Conversational Sign Language Wkplace II

General

Course Key
12698

Course Rubric
SLNG

Course Number
1202

Course Title
Conversational Sign Language in the Workplace II

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2) Development of basic conversational skills through practice designed to improve communication with clients/co-workers who are deaf. Required Prerequisites: SGNL-1401 and SGNL-1402

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

#TAKE SGNL-1401 SGNL-1402;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): SGNL 1401 and SGNL 1402

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate simple, everyday, culturally appropriate communication with clients/co-workers who are deaf.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Utilize visualization skills and apply them to form and meaning of written and spoken texts with an emphasis on medical terminology (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Paraphrase propositions and discourse (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Identify main and supporting ideas (1a, 1b, 1c, 2a, 2b, 2c, 2d).
4. Retell written and spoken material (1a, 1b, 1c, 2a, 2b, 2c, 2d).
5. Demonstrate the use of working and long-term memory, cloze skills, and recognition of patterns (1a, 1b, 1c, 2a, 2b, 2c, 2d).
6. Demonstrate a broader vocabulary and cultural literacy in English and ASL (1a, 1b, 1c, 2a, 2b, 2c, 2d).

SLNG 1207 - Intra-lingual Skills Development Interp

General

Course Key
15968

Course Rubric
SLNG

Course Number
1207

Course Title
Intra-lingual Skills Development Interpretation

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2) Development of intra-lingual (English to English) skills necessary for future development of inter-lingual (English to American Sign Language [ASL]/ASL to English) skills. Focus on linguistics and cognitive skills development in areas of paraphrasing, summarizing, main idea identification, comprehension, memory, delayed repetition, multi-tasking, vocabulary, and cultural literacy. Required Prerequisite: SGNL-2302 SLNG-2301 Required Co-requisite: SLNG-2302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SGNL-2302 SLNG-2301;
Type
Required Prerequisites

10
A Requirement block where all subrequirements are required

Take SGNL-2302 SLNG-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Take SLNG-2302;
Type
Required Co-requisite

10
A Requirement block where all subrequirements are required

take slng-2302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 1211 - Fingerspelling and Numbers

General

Course Key
12741

Course Rubric
SLNG

Course Number
1211

Course Title
Fingerspelling and Numbers

Semester Credit Hours
2

Lecture Hours
1

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-1-2). Development of expressive and receptive skills in fingerspelling and numbers. Receptive skills focus on whole word phrase recognition and fingerspelling/number comprehension in context. Expressive skills focus on the development of speed, clarity, and fluency. Required Prerequisite: SGNL-1401 or equivalent

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites
Type
Required

10
A Requirement block where all subrequirements are required

#Take SGNL-1401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): SGNL 1401 or equivalent

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify and demonstrate fingerspelled words and numbers; demonstrate lexicalized fingerspelling with accuracy, clarity, and fluency; and identify exercises and strategies for preventing repetitive motion injuries.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Summarize the rules associated with fingerspelling in American Sign Language by
    a. identifying appropriate use of fingerspelling (1a, 1b);
    b. utilizing proper techniques to avoid repetitive motion injury (1a, 1b);
    c. incorporating proper articulation to ensure clarity of production (1a, 1b);
    d. choosing the proper number form in a given context (1a, 1b).
2. Express accurately the letters, numbers, proper nouns, and lexicalized vocabulary of American Sign Language by
    a. differentiating the numbering conventions in American Sign Language (1a, 1b, 2b, 2c);
    b. demonstrating fluent production of fingerspelling (1a, 1b, 2b, 2c);
    c. integrating the rules for appropriate use of fingerspelling (1a, 1b, 2b, 2c);
    d. demonstrating the ability to correctly move from one letter to the next in a rhythmic fashion without extraneous movements or hesitation (1a, 1b, 2b, 2c);
    e. demonstrating the ability to mouth fingerspelled words without voicing (1a, 1b, 2b, 2c);
    f. reproducing the lexicalized form of fingerspelled words (1a, 1b, 2b, 2c);
    g. identifying commonly fingerspelled words and acronyms (1a, 1b, 2b, 2c).
3. Comprehend the letters, numbers, proper nouns, and lexicalized vocabulary of American Sign Language by
    a. incorporating a holistic method rather than relying on individual letters (1a, 1b, 2b, 2c);
    b. utilizing contextual clues to aid in closure, including signer's lip movements (1a, 1b, 2b, 2c);
    c. recognizing the lexicalized form of fingerspelled words (1a, 1b, 2b, 2c);
    d. identifying commonly fingerspelled words and acronyms (1a, 1b, 2b, 2c);
    e. increasing the rate at which fingerspelled concepts are recognized (1a, 1b, 2b, 2c).

SLNG 1215 - Visual/Gestural Communication

General

Course Key
11055

Course Rubric
SLNG

Course Number
1215

Course Title
Visual and Gestural Communication

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Development of skills in non-verbal communications. Emphasizes the use and understanding of facial expression, gestures, pantomime, and body language.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Communicate using mime, body language, facial expression, classifiers, and other visual/gestural strategies; create and/or perform stories and narratives in a visual mode; and interact and respond appropriately to visual/gestural communications.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Interpret the use of visual and gestural communication as applied in working with a person that has little to no formal language by
    a. predicting how an individual with limited language will relate to his/her world (1a, 1b, 2c);
    b. comparing the experiences of an individual with limited language to his/her own experience with acquiring language (1a, 1b, 2c);
    c. contrasting teaching methods for an adult with limited language and an individual who has been exposed to language since birth (1a, 1b);
    d. examining the phenomenon of cultural isolation for an individual with limited language (1a, 1b);
    e. analyzing excerpts from text provided by the instructor (1a, 1b);
    f. reasoning the exceptional ability of a deaf individual to communicate effectively with an individual with limited language (1a, 1b).
2. Incorporate visual grammar to effectively communicate emotions and ideas by
    a. examining the use of natural gestures (1a, 1b, 1c);
    b. demonstrating appropriate mouth morphemes (1a, 1b, 1c);
    c. utilizing body posturing (1a, 1b, 1c);
    d. practicing conversational turn taking (1a, 1b, 1c, 2b).
3. Create two-dimensional objects using appropriate handshapes and facial grammar by
    a. manipulating line and shape configurations (1b, 2c);
    b. developing visual memory skills by reproducing predetermined line and/or shape patterns (1b, 2c);
    c. demonstrating how to show symmetrical/non-symmetrical configurations (1b, 2c);
    d. utilizing the appropriate hand configurations to show different textures while incorporating corresponding facial markers (1b, 2c);
    e. differentiating between symmetrical and nonsymmetrical configurations (1b, 2c).
4. Construct three dimensional objects using appropriate handshapes and facial grammar by
    a. describing a variety of balls, cones, cylinders, boxes, boards, and blocks (1b, 2c);
    b. manipulating hand configurations to indicate size and function of a variety of balls, cones, cylinders, boxes, boards, and blocks (1b, 2c);
    c. expanding application and placement of three dimensional shapes to describe spatial relationships (1b, 2c);
    d. describing salient features of architectural landmarks (1b, 2c);
    e. illustrating a given object or scene from various perspectives (1b, 2c);
    f. differentiating between symmetrical and nonsymmetrical configurations (1b, 2c).
5. Portray people and animals using appropriate handshapes and facial grammar by
    a. choosing from a variety of classifiers to correctly show body descriptors (1b, 2c);
    b. choosing from a variety of classifiers to indicate movement and spatial relationship (1b, 2c);
    c. altering classifiers to indicate plurality (1b, 2c).
6. Analyze various narratives by performing in front of class by
    a. developing visual memory skills through storytelling and skills (1b, 2a, 2b, 2c);
    b. incorporating non-manual markers in the scope of a gestured story (1b, 2a, 2b, 2c);
    c. reproducing a simple poem individually (1b, 2a, 2b, 2c);
    d. demonstrating a visual representation of several haiku with a group of peers (1b, 2a, 2b, 2c);
    e. employing classifiers for storytelling to limit action in the presentation (1b, 2a, 2b, 2c);

f. developing a complex visual representation of a common short story with a group of peers (1b, 2a, 2b, 2c).

7. Discriminate between sign language and visual gestural communication by

a. performing a variety of classroom activities that emphasize visual focus (1b, 2b, 2c);

b. employing gestural communication in lieu of sign language (1b, 2b, 2c);

c. monitoring his/her peers' use of gestural communication in lieu of sign language (1b, 2b, 2c).

SLNG 1321 - Intro To The Interpreting Profession

General

Course Key
8049

Course Rubric	Course Number	Course Title
SLNG	1321	Introduction to the Interpreting Profession

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). An overview of the field of American Sign Language (ASL)/English interpretation. Provides a historical framework for the current principles, ethics, roles, responsibilities, and standard practices of the interpreting profession.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe standard practices, employment trends, compensation, and professional business practices in the current job market; explain the tenets of the Code of Professional Conduct and the Standards of Ethical Behavior and apply them to situational decision-making; analyze the history of ASL/English interpreting and its evolution to current practice; and describe issues of language, power, and control and their impact on the role of the interpreter and the goals of interpreting.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Summarize the history of Sign Language Interpreting as a profession by

a. recalling the history and purpose of RID (1a, 2b, 2c);

b. recalling the history and purpose of BEI (1a, 2b, 2c);

c. listing the current goals of RID (1a, 2b, 2c);

d. explaining the current roles and responsibilities of the BEI (1a, 2b, 2c);

e. outlining significant legislative initiatives affecting deaf people and interpreters (1a, 2b, 2c);

f. articulating the importance of holding state and/or national certification (1a, 1c, 2b, 2c);

g. describing the various certificates awarded by RID (1a, 2b, 2c);

h. describing the various certificates awarded by BEI (1a, 2b, 2c).

2. Apply understanding of the roles and responsibilities of a sign language interpreter by

a. describing the four historical service models of sign language interpreters (1a, 1b, 1c, 2b, 2c);

b. describing the emerging service models of sign language interpreters (1a, 1b, 1c, 2b, 2c);

c. exploring the variety of settings in which a sign language interpreter could work (1a, 1b, 1c, 2a, 2b, 2c, 2d);

d. defining intra-lingual skills and being able to discuss their application to the interpreting process (1a, 1b, 1c, 2b, 2c);

e. examining the range of manual communication methods between American Sign Language and English (1a, 1b, 1c, 2b, 2c);

f. demonstrating understanding of the concept of cross cultural communication (1a, 1b, 1c, 2b, 2c);

g. identifying how personal experiences and knowledge impact interpretation (1a, 1b, 1c, 2b, 2c, 2d);

h. discovering the traits that mark a professional (1a, 1b, 1c, 2b, 2c);

i. assessing the role of the interpreter as it relates to power and oppression (1a, 1b, 1c, 2b, 2c);

j. investigating the current job market, trends, and salary schedules (1a, 1b, 1c, 2a, 2b, 2c, 2d);

k. examining best business practices in the field of sign language interpreting (1a, 1b, 1c, 2a, 2b, 2c, 2d);

l. differentiating the role of sign language interpreter versus advocate (1a, 1b, 1c, 2a, 2b, 2c, 2d).

3. Interpret the RID Code of Professional Conduct by

a. comparing morals versus professional ethics (1a, 1b, 1c, 2a, 2b, 2c, 2d);

b. contrasting morals versus professional ethics (1a, 1b, 1c, 2a, 2b, 2c, 2d);

c. applying the RID Code of Professional Conduct to various interpreting scenarios (1a, 1b, 1c, 2a, 2b, 2c, 2d).

4. Refine English proficiency as it relates to the field of Sign Language Interpreting by

a. applying conceptual accuracy when making vocabulary choices (1a, 1b, 2a, 2b, 2c);

b. performing text analysis of English idioms (1a, 1b, 2a, 2b, 2c);

c. increasing understanding of higher level English vocabulary (1a, 1b, 2a, 2b, 2c);

d. building schema through study of unfamiliar topics (1a, 1b, 2a, 2b, 2c).

SLNG 1347 - Deaf Culture

General

Course Key
599

Course Rubric	Course Number	Course Title
SLNG	1347	Deaf Culture

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Historical and contemporary perspective of American Deaf culture using a sociocultural model. Includes cultural identity and awareness, values, group norms, communication, language, and significant contributions made by deaf people to the world.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify Deaf culture and discuss situations that may be encountered; outline the historical roots of American Deaf culture and deaf education; and explain the values, norms, cultural identity, and rules of social interaction within the American Deaf community. Describe the experiences of diverse multicultural communities within the larger American Deaf community.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Relate mainstream experience to that of the Deaf Community and Culture by
    a. recognizing the existence of Deaf Culture (1a, 1b, 1c, 2b, 2c);
    b. identifying characteristics of the Deaf Community and Culture (1a, 1b, 1c, 2b, 2c);
    c. incorporating appropriate terminology to discuss members of the Deaf Community (1a, 1b, 1c, 2b, 2c);
    d. articulating the difference between a cultural and pathological view of Deafness (1a, 1b, 1c, 2b, 2c);
    e. exploring the effects of technology on the Deaf Community (1a, 1b, 1c, 2b, 2c);
    f. identifying cultural norms and mores of Deaf people (1a, 1b, 1c, 2b, 2c);
    g. describing the values and customs of Deaf Culture (1a, 1b, 1c, 2b, 2c);
    h. developing cultural sensitivity for the unique issues that Deaf people may encounter (1a, 1b, 1c, 2b, 2c);
    i. justifying personal views regarding controversial issues (1a, 1b, 1c, 2b, 2c).
2. Relate mainstream experience to the heritage of deaf people by
    a. identifying key events and people in the history of the Deaf Community (1a, 1b, 1c, 2b, 2c);
    b. discovering the important role the Deaf Community in Martha's Vineyard played in American Deaf History (1a, 1b, 1c, 2b, 2c);
    c. discussing the history of sign language and its role in the Deaf Community (1a, 1b, 1c, 2b, 2c);
    d. describing the significance of various Deaf organizations and clubs (1a, 1b, 1c, 2b, 2c);
    e. justifying personal views regarding controversial issues (1a, 1b, 1c, 2b, 2c).
3. Examine a variety of Deaf arts and entertainment by
    a. exploring the different forms of Deaf art including storytelling, poetry, performing arts, and visual arts (1a, 1b, 1c, 2b, 2c);
    b. contrasting the differences between mainstream and Deaf humor (1a, 1b, 1c, 2b, 2c);
    c. recognizing Deaf comedians (1a, 1b, 1c, 2b, 2c);
    d. recognizing the important role sports play in the Deaf Community (1a, 1b, 1c, 2b, 2c).
4. Explore Deaf Education from a global perspective by
    a. tracing the changing views of the ability of D/deaf people to be educated (1a, 1b, 1c, 2b, 2c);
    b. describing the impact of hearing loss on language development and cognition (1a, 1b, 1c, 2b, 2c);
    c. considering resolutions from the Milan Congress 1880 (1a, 1b, 1c, 2b, 2c);
    d. reconstructing the history of D/deaf Education (1a, 1b, 1c, 2b, 2c);
    e. identifying school placement options for parents of D/deaf children (1a, 1b, 1c, 2b, 2c);
    f. differentiating monolingual and bilingual approaches to teaching language (1a, 1b, 1c, 2b, 2c);
    g. describing the impact of multicultural issues in D/deaf Education (1a, 1b, 1c, 2b, 2c);
    h. justifying personal views regarding controversial issues (1a, 1b, 1c, 2b, 2c).
5. Outline key legislative events affecting the Deaf Community by
    a. listing specific legislation affecting Deaf people (1a, 1b, 1c, 2b, 2c);
    b. summarizing key points of the Vocational Rehabilitation Act of 1973 (1a, 1b, 1c, 2b, 2c);
    c. summarizing key points of the Individual of Disabilities Education Act (1a, 1b, 1c, 2b, 2c);
    d. summarizing key points of the Americans with Disabilities Act (1a, 1b, 1c, 2b, 2c).
6. Investigate the concept of oppression as it pertains to Deaf Culture by
    a. recognizing D/deaf people as a minority group that has experienced discrimination and oppression (1a, 1b, 1c, 2b, 2c);
    b. recognizing the diversity of the Deaf Community and resulting oppression (1a, 1b, 1c, 2b, 2c);
    c. discussing the impact being D/deaf has on different families including: hearing parents with deaf children, Deaf parents with Deaf children, and Deaf parents with hearing children (1a, 1b, 1c, 2b, 2c);
    d. recognizing how D/deaf people are often portrayed stereotypically in the media (1a, 1b, 1c, 2b, 2c);
    e. exploring how the interpreting profession can contribute to oppression (1a, 1b, 1c, 2b, 2c);
    f. justifying personal views regarding controversial issues (1a, 1b, 1c, 2b, 2c).

SLNG 1350 - Sign-to-Voice

General

Course Key
15962

Course Rubric	Course Number	Course Title
SLNG	1350	Sign-to-Voice

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2). Skill development in interpreting and transliterating from American Sign Language and other modes of communication to English and analysis of increasingly complex tasks utilizing simulated interpreting experiences including skills analysis and peer evaluation. Required Prerequisite: SLNG-2302 SLNG-1207 Required Co-requisites: SLNG-2431 SLNG-2288

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SLNG-2302 SLNG-1207;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Required Co-requisite

10
A Requirement block where all subrequirements are required

Take SLNG-2431 SLNG-2288;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 2267 - Practicum II

General

Course Key
14932

Course Rubric
SLNG

Course Number
2267

Course Title
Practicum II

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
15

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-15) Practical, general, workplace training supported by an individualized learning plan developed by the employer, the College, and the student. Required Prerequisite(s): SLNG 1350, SLNG 2288, and SLNG 2431. Completed with a "C" or higher. Required Co-requisite(s): SLNG 2303 and SLNG 2436

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Prerequisites

10
A Requirement block where all subrequirements are required

 # Take SLNG-2288(13601) SLNG-1350(7564) SLNG-2431(11199); Minimum grade C;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Corequisites

10
A Requirement block where all subrequirements are required

take slng-2303 slng-2436;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): SLNG 1350, SLNG 2288, and SLNG 2431 Completed with a "C" or higher
Required Corequisite(s): SLNG 2303 and SLNG 2436

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Participate in a state mandated practicum completing the remaining 240 required hours by
    a. demonstrating the ability to establish a good rapport with coworkers, supervisors, and clients (1a, 1c, 2b, 2c);
    b. participating with working interpreters in a variety of settings (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. applying the RID Professional Code of Conduct on each assignment using conflict resolution techniques (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. assessing the communication needs and preferences of clients (1a, 1b, 1c, 2a, 2b, 2c);
    e. evaluating critically the vocabulary choices, language, and application of the Professional Code of Conduct of working interpreters during observation (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. adapting to visual accessibility issues that could impact the communication dynamics of each assignment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. demonstrating understanding of cross-cultural mediation (1a, 1b, 1c, 2a, 2b, 2c).
2. Evaluate their own skill development by
    a. increasing vocabulary base in both American Sign Language and English (1a, 1b, 2a, 2c);
    b. identifying specific strengths in his or her own interpretation/transliteration between American Sign Language and English (1a, 1b, 1c, 2a, 2c, 2d);
    c. identifying specific weaknesses in his or her own interpretation/transliteration between American Sign Language and English (1a, 1b, 1c, 2a, 2c, 2d);
    d. exhibiting increasing fluency and rate of interpretation/transliteration without compromising message equivalency (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. assimilating all feedback provided by clients and cooperating interpreters (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. performing critically specific post assignment evaluation and analysis of work product (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    g. establishing a plan to target specific skill improvement using post assignment evaluation (1a, 1b, 1c, 2a, 2c, 2d);
    h. constructing language choices according to appropriate register (1a, 1b, 1c, 2a, 2c, 2d);
    i. attaining the individual set of objectives as established during Practicum I (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Establish a professional portfolio by
    a. applying the RID Professional Code of Conduct on all assignments (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. exhibiting appropriate interpersonal skills with clients and peers (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. dressing appropriately according to the needs of the interpreting assignment (1c, 2b);
    d. demonstrating punctuality and dependability for each assignment (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. following directions of cooperating interpreters and instructors (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. preparing adequately for all interpreting assignments by collecting materials and allotting sufficient time (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    g. maintaining membership in at least one of the professional interpreting organizations (1a, 1c, 2a, 2b, 2c);
    h. building a professional resume (1a, 1b, 1c, 2a, 2c, 2d);
    i. securing three formal letters of recommendation (1a, 1b, 1c, 2a, 2c, 2d);
    j. practicing successful interview skills (1a, 1b, 1c, 2a, 2c, 2d).

SLNG 2288 - Internship-Sign Language Interpretation

General

Course Key
15963

Course Rubric
SLNG

Course Number
2288

Course Title
Internship-Sign Language Interpretation

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
12

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-12) A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Required Prerequisite:SLNG-2302 SLNG-1207 Required Co-requisite: SLNG-2431 SLNG-1350

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SLNG-2302 SLNG-1207;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Required Co-requisite

10
A Requirement block where all subrequirements are required

Take SLNG-2431 SLNG-1350;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 2301 - Interpreting I

General

Course Key
15974

Course Rubric
SLNG

Course Number
2301

Course Title
Interpreting I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) An overview of the interpreting process and models of interpretation. Introduces the skills necessary to achieve dynamic message equivalence in interpreting American Sign Language (ASL) to English and English to ASL. Required Prerequisite: SGNL-2301 Required Co-requisite: SGNL-2302

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SGNL-2301;
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SGNL-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Take SGNL-2302;
Type
Required Co-requisite

10
A Requirement block where all subrequirements are required

Take SGNL-2302;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 2302 - Interpreting II

General

Course Key
15973

Course Rubric
SLNG

Course Number
2302

Course Title
Interpreting II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Continued development of discourse analysis and interpreting skills for increasingly complex tasks. Utilization of consecutive and simultaneous interpreting scenarios including monologues and dialogues. Emphasizes skill development, self-analysis, and peer evaluation. Required Prerequisite: SGNL-2302 SLNG-2301 Required Co-requisite: SLNG-1207

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SGNL-2302 SLNG-2301;
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SGNL-2302(15967) SLNG-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Take SLNG-1207;
Type
Required Co-requisite

10
A Requirement block where all subrequirements are required

Take SLNG-1207;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 2303 - Transliterating

General

Course Key
15971

Course Rubric
SLNG

Course Number
2303

Course Title
Transliterating

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-1). A practice-oriented course designed to develop skills necessary for rendering spoken English to a signed English format and signed English to spoken English. Required Prerequisite: SLNG-2431 SLNG-1350 SLNG-2288 Required Co-requisite: SLNG-2436 SLNG-2267

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SLNG-2431 SLNG-1350 SLNG-2288
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SLNG-2431 SLNG-1350 SLNG-2288
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Take SLNG-2436 SLNG-2267;
Type
Required Co-requisite

10
A Requirement block where all subrequirements are required

Take SLNG-2436(15969) SLNG-2267;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 2431 - Interpreting III

General

Course Key
15970

Course Rubric
SLNG

Course Number
2431

Course Title
Interpreting III

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) A practice-oriented course to strengthen skills in the integration and application of interpreting using complex source materials. Continued exposure to simulated interpreting/transliterating experiences. Required Prerequisite: SLNG-2302 SLNG-1207 Required Co-requisite: SLNG-1350 SLNG-2288

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SLNG-2302 SLNG-1207
Type
Required Prerequisite

10
A Requirement block where all subrequirements are required

Take SLNG-2302(15973) SLNG-1207;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Take SLNG-1350 SLNG-2288
Type
Required Co-requisite

10
A Requirement block where all subrequirements are required

Take SLNG-1350 SLNG-2288
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLNG 2436 - Interpreting IV

General

Course Key
15969

Course Rubric	Course Number	Course Title
SLNG	2436	Interpreting IV

Semester Credit Hours	Lecture Hours	Lab Hours
4	3	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-2) A practice-oriented course to strengthen skills in the integration and application of interpreting using complex source materials. Continued exposure to simulated interpreting/transliterating experiences. Required Prerequisite: SLNG-2431 SLNG-1350 SLNG-2288 Required Co-requisite: SLNG-2303 SLNG-2267

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

Take SLNG-2431 SLNG-1350 SLNG-2288;
Type
Required Prerequisites

10
A Requirement block where all subrequirements are required

Take SLNG-2431 SLNG-1350 SLNG-2288;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Take SLNG-2303 SLNG-2267;
Type
Required Co-requisites

10
A Requirement block where all subrequirements are required

Take slng-2303 slng-2267;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SLPS 1371 - Introduction to Security Management

General

Course Key
6335

Course Rubric	Course Number	Course Title
SLPS	1371	Introduction to Security Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0).An exploration of topics, which form the foundation of knowledge necessary in the field of security management. Specific content areas include: the history of private security, loss prevention, prevention programs, risk assessment, vulnerability assessment, and countermeasure selection. Other topics include internal and external relations, and financial management.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the dynamic nature of security management issues and the need to stay current and informed of the ever changing environment by
    a. describing the historical development of security (1a, 1b, 1c, 2b, 2c);
    b. identifying the role of security (1a, 1b, 1c, 2b, 2c);
    c. explaining the need for internal and external controls (1a, 1b, 1c, 2b, 2c);
    d. discussing the role of the proprietary security organization (1a, 1b, 1c, 2b, 2c);
    e. discussing security education, training, certification, and regulation (1a, 1b, 1c, 2b, 2c).
2. Demonstrate an understanding of the security system thinking process, and its value in criminal justice by
    a. assessing the role of security management in the workplace (1a, 1b, 2b, 2c);
    b. explaining the value of security management as being proactive (1a, 1b, 2b, 2c).
3. Demonstrate the ability to conduct independent research on issues related to security management by
    a. identifying pertinent and legitimate resources (1a, 1b, 2a, 2c);
    b. synthesizing research in order to acquire knowledge (1a, 1b, 2a, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2a, 2c);
    d. delivering the reports in a simulated work environment (1a, 1b, 2a, 2c).
4. Demonstrate an understanding of risk and risk management strategies in the field of security management by
    a. determining why and what risks affect security management as a profession (1a, 1b, 2a, 2b, 2c);
    b. identifying strengths and weakness of security management (1a, 1b, 2a, 2b, 2c);
    c. preparing strategies for security management (1a, 1b, 2a, 2b, 2c).

SLPS 1372 - Security and Loss Prevention

General

Course Key
14461

Course Rubric
SLPS

Course Number
1372

Course Title
Security and Loss Prevention

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0) Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. This course covers a select group of topics confronting security management personnel and the public they serve. Recommended Prerequisites: CRIJ-1301 and SLPS-1371

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites/corequisites.
Type
Recommended

10
A Requirement block where all subrequirements are required

take crij-1301 slps-1371;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Recommended Prerequisite(s): CRIJ 1301 and SLPS 1371

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Learning outcomes/objectives are determined by local occupational need and business and industry trends.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the core topics related to the selected course theme by
    a. analyzing the nature of the current issues (1a, 1b, 2c);
    b. demonstrating critical reading and thinking as the issues are analyzed (1a, 1b, 2c);
    c. demonstrating the ability to identify problems, use problem solving skills, and communicate information gathered (1a, 1b, 2c).
2. Demonstrate the ability to conduct independent research on current issues related to professional law enforcement by
    a. identifying pertinent and legitimate resources (1a, 1b, 2a, 2b, 2c);
    b. synthesizing research in order to acquire knowledge (1a, 1b, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2c);
    d. delivering the reports in a simulated work environment (1a, 1b, 2a, 2b, 2c).

SLPS 2371 - Fundamentals of Physical Security

General

Course Key
6336

Course Rubric
SLPS

Course Number
2371

Course Title
Fundamentals of Physical Security

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Technical Local Need

Description
(3-3-0). Basic concepts of facilities protection and control, to include: facility planning, perimeter boundaries, alarms, barriers, lighting, security surveys, materials control, emergency planning, employee and visitor control, and issues regarding parking, communications, and transportation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of physical security as a critical component of security management by
    a. analyzing the nature of current issues (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. identifying areas of risk assessments and management (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. identifying areas of crime prevention through security design (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. identifying the criteria for security surveys (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. identifying the influences of physical security (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. explaining homeland security issues in relation to business practices (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    g. explaining the need for building barriers, intrusion detection systems, and CCTV surveillance systems (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Demonstrate the ability to conduct independent research on issues related to criminal justice by
    a. identifying pertinent and legitimate resources (1a, 1b, 2a, 2c);
    b. synthesizing research in order to acquire knowledge (1a, 1b, 2a, 2c);
    c. preparing written and oral reports based on the research (1a, 1b, 2a, 2c);
    d. delivering the reports in a simulated work environment (1a, 1b, 2a, 2c).
3. Demonstrate an understanding of effective recruitment and selection strategies in the field of security management by
    a. explaining the need for security guards (1a, 1b, 1c, 2a, 2b, 2c);
    b. determining the importance of human resources and how they affect security management as a whole (selection of good security personnel) (1a, 1b, 1c, 2a, 2b, 2c);
    c. identifying strengths and weaknesses of current recruitment and selection systems (1a, 1b, 1c, 2a, 2b, 2c);
    d. preparing strategies for recruitment and selection (1a, 1b, 1c, 2a, 2b, 2c);
    e. analyzing employment trends in security management (1a, 1b, 1c, 2a, 2b, 2c).

SMFT 1211 - Vacuum Principles

General

Course Key
16541

Course Rubric	Course Number	Course Title
SMFT	1211	Vacuum Principles

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) An introduction to vacuum technology, vacuum principles, pumping systems, gauging, leak detection, and safety practices.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain vacuum principles; identify vacuum components; describe vacuum systems, leak detection techniques, and safety practices related to vacuum systems.

Upon successful completion of this course, students will

1. Development of vacuum science and vacuum technology an understanding of vacuum principles by:
   a. Boyle Robert.
   b. Galileo Galilern experiments;
   c. Evamgelista Torricelli experiments;
   d. Blaise Pascal experiments;
   e. Otto von Guerickey experiments.
   f. Joseph Louis experiments
   g. Jacques Charles experiments
2. Demonstrate an understanding of vacuum pumps by:
   a. characteristics of dry pumps;
   b. characteristics of diffusion pumps;
   c. characteristics of mechanical pumps.
3. Identify the types of vacuum regimes by
   a. understanding rough vacuum;
   b. understanding high vacuum;
   c. understanding ultrahigh vacuum.
4. Demonstrate of measurements by:
   a. calculating volume and surface area;
   b. calculating the converting units;
5. Determine the vacuum gauges by:
   a. vacuum pressure gauge;
   b. bourdon gauge;
   c. direct reading gauge;
   d. indirect reading gauge;
   e. pirani gauge.

SMFT 1343 - Semiconductor Manufacturing Technology

General

Course Key
16540

Course Rubric	Course Number	Course Title
SMFT	1343	Semiconductor Manufacturing Technology

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) A study of the processes, materials, and equipment used in the manufacturing of semiconductors, including an overview of the semiconductor industry, related terminology, and standard safety practice.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the processes, materials, and equipment used in semiconductor manufacturing; define and use semiconductor manufacturing terms; identify personal, industry, and environmental safety procedure standards related to semiconductor manufacturing technology; explain the relationship between the physical structure and the way a semiconductor device operates.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of characteristics of semiconductor materials by:
   a. atomic structure;
   b. ionic bonds;
   c. covalent bonds;
   d. classifying materials: conductors, insulators, and semiconductors;
   e. silicon: pure silicon, doped silicon, and pn junction;
   f. alternative semiconductor.
2. Demonstrate silicon wafer preparation by:
   a. understand crystal structure and orientation;
   b. understand monocrystal silicon growth;
   c. understand wafer preparation steps;
   d. identify quality measures.
3. Demonstrate chemicals in semiconductor fabrications by
   a. understand properties of materials;
   b. understand process chemicals;
   c. understand ultrahigh vacuum.
4. Identify contamination control in wafer FABs by:
   a. understand types of contamination;
   b. understand the source and control of contamination.
   c. understand wafer wet cleaning.
5. Determine metrology and defect inspection by:
   a. understand measurement equipment;
   b. understand the yield;
   c. understand quality measurement;
   d. understand analytical equipment.
6. Determine gas control in process chambers by:
   a. understanding vacuum piping components;
   b. understanding control valves;
   c. understanding feedthrough, elbows, coupling, seals, and flanges.
7. Demonstrate the process for the wafer by:
   a. explaining oxidation procedure;
   b. explaining deposition procedure;
   c. explaining metallization;
   d. explaining photolithography vapor prime, soft bake, alignment exposure, photoresist, and development;
   e. explaining etch
   f. explaining ion implant;
   g. chemical mechanical planarization.
8. Understand the process of testing wafer by
   a. explain ic electrical test;
   b. explain the in-line parameters test;
   c. explain the wafer sort;
   d. explain the yield sort;
   e. explain test quality measures and troubleshooting

SMFT 2335 - Vacuum Technology

General

Course Key
16539

Course Rubric
SMFT

Course Number
2335

Course Title
Vacuum Technology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Skill development in vacuum technology, including vacuum principles, pumping systems, gauging, leak detection, and safety principles. Required Prerequisite: SMFT-1211

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Requirements
Required Prerequisite(s): SMFT-1211

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain vacuum principles; list vacuum components and their functions; describe vacuum systems and their industrial application; discuss leak detection techniques and system troubleshooting; demonstrate safety practices related to vacuum systems.

Upon successful completion of this course, students will

1. Demonstrate an understanding of vacuum technology by
   a. recognize vacuum systems;
   b. understanding pressure regime;
2. Identify the behavior of gases;
   d. recognize leak detection in vacuum systems
3. Calculate the gas load of the bulk gas present in a vacuum chamber before initiating a system pump down by
   a. analyze partial pressure analysis using residual gas analyzer;
   b. apply gas delivery and pressure control.
4. Identify the sources that contribute to gas load in rough and high vacuum regimes by
   a. understanding the first pressure regime;
   b. understanding the rough vacuum regime;
   c. understanding high-vacuum systems.
5. Draw a schematic diagram of a basic vacuum system using symbols commonly used to represent vacuum system components by
   a. identify the main components present in a vacuum system;
   b. identify and classify the types of vacuum pumps suitable for use in the rough vacuum and high vacuum regimes;
   c. identify and classify the types of gauges suitable for use in the rough vacuum and high vacuum regimes.
   d. describe other components used in the design of vacuum systems

SMFT 2450 - Vacuum Thin Films

General

Course Key
16538

Course Rubric
SMFT

Course Number
2450

Course Title
Vacuum Thin Films

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3) Physical vapor deposition (PVD), chemical vapor deposition (CVD), and related systems. Includes planning, repairing, maintaining, and testing various systems such as evaporators, electron guns, ion plating, direct current (DC) and radio frequency (RF) sputtering systems. The course is intended to enhance and apply knowledge gained in previous vacuum-related classes. Other topics include the planning, repairing, maintaining, and coating of various chemical depositions used as coatings in manufactured optics and semiconductors.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SOCI 1301 - Introduction to Sociology Honors

General

Course Key
16218

Course Rubric
SOCI

Course Number
1301

Course Title
Introduction to Sociology Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance. Required Prerequisite: ENGL-1301 with minimum grade of C or TSI met in Reading and writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) or PSYC-2301(13681); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course descriptions for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

SOCI 1301 - Introduction to Sociology

General

Course Key
16217

Course Rubric
SOCI

Course Number
1301

Course Title
Corequisite Introduction to Sociology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance. Required Co-Requisite: INRW-0399 or INRW-0114

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

A Co-Requisite of either INRW-0114 or INRW-0399 will be required with this course.
Type
Corequisite

10
A Requirement block where all subrequirements are required

Take INRW-0399 or INRW-0114;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

SOCI 1301 - Introduction to Sociology

General

Course Key
16219

Course Rubric
SOCI

Course Number
1301

Course Title
Introduction to Sociology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance. Required Prerequisite: ENGL-1301 with minimum grade of C or TSI met in Reading and Writing

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0309(8534); Minimum grade C; # Take READ-PASS; # Take ENGL-1301(13677) GOVT-2305(13678) HIST-1301(13679) HIST-1302(13680) or PSYC-2301(13681); Minimum grade C; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take 1 group; # Take INRW-0399(9631) INRW-0114 or ESOL-0312(8538); Minimum grade C; # Take WRIT-PASS; # Take WRIT-OBJT WRIT-ESSY; # Take INRW-NCR1 INRW-DX04 INRW-ESS3; # Take INRW-NCR1 INRW-DX03 INRW-ESS3; # Take INRW-CR01 INRW-ESS3;
A Subrequirement block where not all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

30
(ALL COURSES): Take all of the following courses...

SOCI 1306 - Social Problems

General

Course Key
16220

Course Rubric
SOCI

Course Number
1306

Course Title
Social Problems

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Application of sociological principles and theoretical perspectives to major social problems in contemporary society such as inequality, crime and violence, substance abuse, environmental issues, deviance, or family problems.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SOCI 2301 - Marriage and the Family

General

Course Key
16221

Course Rubric
SOCI

Course Number
2301

Course Title
Marriage and the Family

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Sociological and theoretical analysis of the structures and functions of the family, the varied cultural patterns of the American family, and the relationships that exist among the individuals within the family, as well as the relationships that exist between the family and other institutions in society.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SOCI 2319 - Minority Studies

General

Course Key
16043

Course Rubric
SOCI

Course Number
2319

Course Title
Minority Studies

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) This course studies minority-majority group relations, addressing their historical, cultural, social, economic, and institutional development in the United States. Both sociological and social psychological levels of analysis will be employed to discuss issues including experiences of minority groups within the context of their cultural heritage and tradition, as well as that of the dominant culture. Core concepts to be examined include (but are not limited to) social inequality, dominance/subordination, prejudice, and discrimination. Particular minority groups discussed may include those based on poverty, race/ethnicity, gender, sexual orientation, age, disability, or religion.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SOCI 2336 - Criminology

General

Course Key
16044

Course Rubric
SOCI

Course Number
2336

Course Title
Criminology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) The course surveys various theories of crime, with an emphasis on understanding the social causes of criminal behavior. The techniques for measuring crime as a social phenomenon and the characteristics of criminals are examined. This course addresses crime types (such as consensual or white-collar crimes), the criminal justice system, and other social responses to crime.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SOCW 2361 - Introduction to Social Work

General

Course Key
16222

Course Rubric
SOCW

Course Number
2361

Course Title
Introduction to Social Work

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). An overview of the history and development of social work as a profession. The course is designed to foster a philosophical, historical, and critical understanding of the social work profession, including social work values, ethics, and areas of practice utilized under a Generalist Intervention Model. (SOCW 2361 is included in the Social Work Field of Study.)

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SOCW 2362 - Social Welfare: Legislation/Program/Srv

General

Course Key
16223

Course Rubric
SOCW

Course Number
2362

Course Title
Social Welfare: Legislation, Programs, and Services

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0). This course offers a historical and contemporary examination of legislation and resulting programs, policies, and services in the context of the social welfare system in the United States. Special attention is given to the political, economic, environmental, and social conditions that prompted the development of legislation to meet the needs of vulnerable populations. Societal responses to legislation are also considered. (SOCW 2362 is included in the Social Work Field of Study.) Required Prerequisite: SOCW 2361.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take SOCW-2361;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SOCW 2389 - Academic Cooperative

General

Course Key
16224

Course Rubric
SOCW

Course Number
2389

Course Title
Academic Cooperative

Semester Credit Hours
3

Lecture Hours
1

Lab Hours
8

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-1-8) A supervised experiential learning course designed to integrate program study with introductory exposure to the field of social work. In conjunction with individual study and/or seminars, the student will set specific goals and objectives in the study of social work and/or social institutions. The academic cooperative is not a social work skills-based practice experience, but instead, an observational volunteer experience. The course must include a minimum of 80 contact hours (48 hours in a social service setting). (SOCW 2389 is included in the Social Work Field of Study. Required Prerequisite: SOCW-2361 Recommended Prerequisite: SOCW-2362

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take SOCW-2361;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE SOCW-2362;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SPAN 1300 - Beginning Spanish Conversation I

General

Course Key
16225

Course Rubric
SPAN

Course Number
1300

Course Title
Beginning Spanish Conversation I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Basic practice in comprehension and production of the spoken language.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SPAN 1411 - Beginning Spanish I

General

Course Key
16226

Course Rubric
SPAN

Course Number
1411

Course Title
Beginning Spanish I

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. Includes acquisition of language functions, basic vocabulary, and culture through contextualized presentations, interactive activities, and extensive laboratory practice.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SPAN 1412 - Beginning Spanish II

General

Course Key
16227

Course Rubric
SPAN

Course Number
1412

Course Title
Beginning Spanish II

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(4-3-2) Continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Emphasis on conversation. Recommended Prerequisite: SPAN-1411

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take span-1411;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SPAN 2311 - Intermediate Spanish I

General

Course Key
16228

Course Rubric
SPAN

Course Number
2311

Course Title
Intermediate Spanish I

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Continuation of SPAN-1412. The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Conversational practice based on selected readings and dialogues. Directed composition. Class conducted largely in Spanish. Recommended Prerequisite: SPAN-1412

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take span-1412;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SPAN 2312 - Intermediate Spanish II

General

Course Key
16229

Course Rubric
SPAN

Course Number
2312

Course Title
Intermediate Spanish II

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Continuation of SPAN-2311. The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Recommended Prerequisite: SPAN-2311

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

take span-2311;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

SPCH 1311 - Introduction to Speech Communication

General

Course Key
16040

Course Rubric
SPCH

Course Number
1311

Course Title
Introduction to Speech Communication

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SPCH 1311 - Intro to Speech Communication Honors

General

Course Key
16039

Course Rubric
SPCH

Course Number
1311

Course Title
Introduction to Speech Communication Honors

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SPCH 1315 - Public Speaking

General

Course Key
16042

Course Rubric
SPCH

Course Number
1315

Course Title
Public Speaking

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students' speaking abilities, as well as ability to effectively evaluate oral presentations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SPCH 1318 - Interpersonal Communication

General

Course Key
16046

Course Rubric
SPCH

Course Number
1318

Course Title
Interpersonal Communication

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Application of communication theory to interpersonal relationship development, maintenance, and termination in relationship contexts including friendships, romantic partners, families, and relationships with co-workers and supervisors.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SPCH 1321 - Business and Professional Communication

General

Course Key
16041

Course Rubric
SPCH

Course Number
1321

Course Title
Business and Professional Communication

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Study and application of communication within the business and professional context. Special emphasis will be given to communication competencies in presentations, dyads, teams and technologically mediated formats.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SPCH 2335 - Argumentation and Debate

General

Course Key
16047

Course Rubric
SPCH

Course Number
2335

Course Title
Argumentation and Debate

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) Theories and practice in argumentation and debate including analysis, reasoning, organization, evidence, and refutation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

SRGT 1266 - Practicum Surgical Technology

General

Course Key
8455

Course Rubric
SRGT

Course Number
1266

Course Title
Practicum - Surgical Technology/Technologist

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
14

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-14). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comprehend information given on surgical instrumentation by
    a. describing classifications, parts, and uses of basic surgical instruments (1a, 1b, 2c);
    b. identifying instruments and uses in multiple specialty instrument sets (1a, 1b, 2c);
    c. demonstrating proper technique for opening, closing, passing, and holding surgical instruments (1a, 1b, 2c);
    d. assembling various instrument sets (1a, 1b, 2c).
2. Describe names and uses of multiple surgical supplies by
    a. listing names and uses of all items on supply display boards (1a, 1b, 2c);
    b. identifying various types of surgical knife blades (1a, 1b, 2c).
3. Demonstrate proper technique for using hypodermic needles and syringes by
    a. assembling various needles and syringes (1a, 1b, 2c);
    b. performing proper technique for drawing up medications and solutions in circulating and scrub roles (1a, 1b, 2c);
    c. demonstrating safe one handed recapping technique (1a, 1b, 2c);
    d. demonstrating proper sharps disposal process (1a, 1b, 2c).
4. Demonstrate an understanding of the process for opening sterile supplies by
    a. explaining parameters checked before opening a supply (1a, 1b, 2c);
    b. showing proper technique for opening sterile supplies (1a, 1b, 2c);
    c. listing principles of aseptic technique involved in opening sterile supplies (1a, 1b, 2c).
5. Display proper technique for a surgical scrub, gowning, and gloving by
    a. performing a correct counted stroke method surgical scrub (1a, 1b, 2c);
    b. showing correct surgically clean hand drying technique (1a, 1b, 2c);
    c. performing proper self-gowning and assisted gowning (1a, 1b, 2c);
    d. performing proper closed gloving and open assisted gloving (1a, 1b, 2c).
6. Duplicate multiple surgical procedure set ups in appropriate time limits by
    a. demonstrating proper general, vaginal, and extremity procedure setups (1a, 1b, 2c);
    b. performing efficient surgical counts of sponges, sharps, and instruments (1a, 1b, 2c);
    c. displaying proper draping methods for each procedure set up (1a, 1b, 2c);
    d. performing proper instrument passing for each set up (1a, 1b, 2c);
    e. demonstrating proper postoperative surgical gown and glove removal (1a, 1b, 2c).
7. Analyze information presented on sutures and suture needles by
    a. explaining various types, sizes, and uses of surgical sutures (1a, 1b, 2c);
    b. demonstrating the ability to identify by sight and to name and use suture needles (1a, 1b, 2c);
    c. demonstrating proper loading of suture needle holders (1a, 1b, 2c);
    d. explaining various types of wound closures (1a, 1b, 2c).

8. Demonstrate multiple surgical patient positions by
    a. listing equipment needed for each surgical position (1a, 1b, 2c);
    b. identifying transport methods for surgical patients (1a, 1b, 2c);
    c. performing patient positioning on operating room beds for supine, sitting, prone, lateral, and lithotomy positions (1a, 1b, 2c);
    d. identifying safety precautions for each position (1a, 1b, 2c).

9. Display proper techniques for surgical preps and catheterizations by
    a. demonstrating proper open gloving technique (1a, 1b, 2c);
    b. performing proper surgical prep for abdominal, vaginal, and extremity procedures (1a, 1b, 2c);
    c. performing proper male and female urinary catheterization procedures (1a, 1b, 2c);
    d. showing proper post procedure glove removal technique (1a, 1b, 2c).

SRGT 1366 - Practicum Surgical Technology

General

Course Key
14678

Course Rubric	Course Number	Course Title
SRGT	1366	Practicum - Surgical Technology/Technologist
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	0	21

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-21). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comprehend information given on surgical instrumentation by
    a. describing classifications, parts, and uses of basic surgical instruments (1a, 1b, 2c);
    b. identifying instruments and uses in multiple specialty instrument sets (1a, 1b, 2c);
    c. demonstrating proper technique for opening, closing, passing, and holding surgical instruments (1a, 1b, 2c);
    d. assembling various instrument sets (1a, 1b, 2c).

2. Describe names and uses of multiple surgical supplies by
    a. listing names and uses of all items on supply display boards (1a, 1b, 2c);
    b. identifying various types of surgical knife blades (1a, 1b, 2c).

3. Demonstrate proper technique for using hypodermic needles and syringes by
    a. assembling various needles and syringes (1a, 1b, 2c);
    b. performing proper technique for drawing up medications and solutions in circulating and scrub roles (1a, 1b, 2c);
    c. demonstrating safe one handed recapping technique (1a, 1b, 2c);
    d. demonstrating proper sharps disposal process (1a, 1b, 2c).

4. Demonstrate an understanding of the process for opening sterile supplies by
    a. explaining parameters checked before opening a supply (1a, 1b, 2c);
    b. showing proper technique for opening sterile supplies (1a, 1b, 2c);
    c. listing principles of aseptic technique involved in opening sterile supplies (1a, 1b, 2c).

5. Display proper technique for a surgical scrub, gowning, and gloving by
    a. performing a correct counted stroke method surgical scrub (1a, 1b, 2c);
    b. showing correct surgically clean hand drying technique (1a, 1b, 2c);
    c. performing proper self-gowning and assisted gowning (1a, 1b, 2c);
    d. performing proper closed gloving and open assisted gloving (1a, 1b, 2c).

6. Duplicate multiple surgical procedure set ups in appropriate time limits by
    a. demonstrating proper general, vaginal, and extremity procedure setups (1a, 1b, 2c);
    b. performing efficient surgical counts of sponges, sharps, and instruments (1a, 1b, 2c);
    c. displaying proper draping methods for each procedure set up (1a, 1b, 2c);
    d. performing proper instrument passing for each set up (1a, 1b, 2c);
    e. demonstrating proper postoperative surgical gown and glove removal (1a, 1b, 2c).

7. Analyze information presented on sutures and suture needles by
    a. explaining various types, sizes, and uses of surgical sutures (1a, 1b, 2c);
    b. demonstrating the ability to identify by sight and to name and use suture needles (1a, 1b, 2c);
    c. demonstrating proper loading of suture needle holders (1a, 1b, 2c);
    d. explaining various types of wound closures (1a, 1b, 2c).

8. Demonstrate multiple surgical patient positions by
    a. listing equipment needed for each surgical position (1a, 1b, 2c);
    b. identifying transport methods for surgical patients (1a, 1b, 2c);
    c. performing patient positioning on operating room beds for supine, sitting, prone, lateral, and lithotomy positions (1a, 1b, 2c);
    d. identifying safety precautions for each position (1a, 1b, 2c).

9. Display proper techniques for surgical preps and catheterizations by
    a. demonstrating proper open gloving technique (1a, 1b, 2c);
    b. performing proper surgical prep for abdominal, vaginal, and extremity procedures (1a, 1b, 2c);
    c. performing proper male and female urinary catheterization procedures (1a, 1b, 2c);
    d. showing proper post procedure glove removal technique (1a, 1b, 2c).

SRGT 1367 - Practicum - Surgical Technologist

General

Course Key
12885

Course Rubric	Course Number	Course Title
SRGT	1367	Practicum - Surgical Technology/Technologist
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
3	0	24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Practice attitudes, work habits, and professionalism as presented in the Surgical Technology Student Code of Conduct by
    a. demonstrating respect for patients, hospital staff, and surgeons (1a, 1b, 1c, 2b, 2c);
    b. demonstrating respect for classmates and faculty (1a, 1b, 1c, 2b, 2c);
    c. practicing within limitations of professional scope of practice (1a, 1b, 2c);
    d. demonstrating the ability to consent to and accept constructive criticism (1a, 1b, 2c);
    e. demonstrating the ability to obtain assignments on time, dress in proper attire, and present self in an alert manner (1a, 1b, 2c).

2. Initiate proper preoperative processes by
    a. performing preliminary hand wash (1a, 1b, 2c);
    b. assembling supplies, equipment, and sutures needed (1a, 1b, 2c);
    c. displaying proper technique in scrubbing, gowning, and gloving (1a, 1b, 2c);
    d. performing proper procedure setup under direction of preceptor (1a, 1b, 2b, 2c);
    e. identifying sterile boundaries and areas (1a, 1b, 2c).

3. Display proper intraoperative techniques quickly by
    a. organizing surgical drapes in proper order of use (1a, 1b, 2c);
    b. performing proper instrument selection, passing, and anticipation during procedure (1a, 1b, 2c);
    c. reacting quickly and properly to breaks in sterile technique (1a, 1b, 2c);
    d. initiating surgical counts at appropriate times (1a, 1b, 2c);
    e. displaying strong surgical conscience at all times (1a, 1b, 2b, 2c).

4. Demonstrate the ability to perform proper postoperative procedures by
    a. displaying proper technique in application of wound dressing (1a, 1b, 2c);
    b. demonstrating removal of drapes using correct technique (1a, 1b, 2c);
    c. displaying proper handling of surgical specimens (1a, 1b, 2c);
    d. performing removal of dirty instruments to decontamination room (1a, 1b, 2c);
    e. following technique for proper disposal of sharps (1a, 1b, 2c);
    f. displaying initiative in preparing for next procedure (1a, 1b, 2c).

SRGT 1405 - Introduction to Surgical Technology

General

Course Key
6341

Course Rubric	Course Number	Course Title
SRGT	1405	Introduction to Surgical Technology
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0). Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Explain the physical, interpersonal, and ethical aspects of the operating room environment; relate basic concepts of surgical pharmacology and anesthesia; identify basic concepts of technological sciences; and demonstrate patient care concepts.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the characteristics of professionalism, ethics, communication, and teamwork by
    a. citing the attributes of professionalism in surgical technology (1a, 1b, 2b, 2c);
    b. distinguishing between licensure and certification and the limitations of practice in each (1a, 1b, 2c);
    c. explaining surgical conscience and ethical behavior in the role of a surgical technologist (1a, 1b, 2c);
    d. demonstrating effective communication abilities (1a, 1b, 2c);
    e. explaining the importance of teamwork in surgical technology (1a, 1b, 2c).
2. Demonstrate an understanding of areas of potential legal liability for surgical technologists by
    a. identifying differences in civil and criminal liability (1a, 1b, 2c);
    b. listing protective safeguards against liability for the surgical technologist (1a, 1b, 2c).
3. Explain procedures for patient care in the operating room by
    a. identifying normal and abnormal lab values and vital signs of patients (1a, 1b, 2c);
    b. listing concerns and needs of special patient populations (1a, 1b, 2c);
    c. describing drugs and equipment used in surgery and anesthesia (1a, 1b, 2c);
    d. explaining the care of patients in specific emergency situations (1a, 1b, 2c).
4. Demonstrate basic patient positions for surgical procedures by
    a. indicating padding and equipment needed for safety in each position (1a, 1b, 2c);
    b. identifying position associated with each basic surgical procedure (1a, 1b, 2c).
5. Discuss guidelines and methods for surgical preps on and draping of surgical patients by
    a. identifying prepping solutions and their properties and indications for use (1a, 1b, 2c);
    b. describing areas to be prepped and special considerations for each (1a, 1b, 2c);
    c. stating methods of hair removal and issues with each (1a, 1b, 2c).
6. Describe care of specimens and safety factors for use of electrosurgery, x-ray and lasers by
    a. stating proper care of different types of surgical specimens (1a, 1b, 2c);
    b. identifying electrosurgical circuit and placement of inactive electrode (1a, 1b, 2c);
    c. citing precautions for use of different types of lasers (1a, 1b, 2c);
    d. explaining safety methods for use with radiation exposure (1a, 1b, 2c).

SRGT 1409 - Fund Perioperative Concepts/Techniques

General

Course Key
6342

Course Rubric	Course Number	Course Title
SRGT	1409	Fundamentals of Perioperative Concepts and Techniques
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0). In-depth coverage of perioperative concepts such as aseptic/sterile principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate principles and practices of aseptic techniques; explain infectious processes and concepts of wound healing; and create and maintain a sterile field utilizing basic case preparation and procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of principles and practices of aseptic (sterile) technique by
    a. identifying rules of aseptic technique (1a, 1b, 2c);
    b. explaining concepts of universal precautions as they relate to the operating room (1a, 1b, 2c);
    c. describing purpose and use of personal protective equipment (PPE) (1a, 1b, 2c);
    d. listing pathogens commonly found in the operating room (1a, 1b, 2c);
    e. citing sources of contamination as concerns surgical personnel, patients, and the operating room (1a, 1b, 2c);
    f. listing conditions which increase the patient's risk of postoperative infection (1a, 1b, 2c).
2. Demonstrate an understanding of the principles of decontamination and sterilization by
    a. differentiating among antisepsis, disinfection, and sterility (1a, 1b, 2c);
    b. describing specific procedures used to decontaminate surgical equipment and supplies (1a, 1b, 2c);
    c. identifying hazards and precautions when using chemical disinfectants (1a, 1b, 2c);
    d. describing different types of sterilizers and listing advantages and disadvantages of each type (1a, 1b, 2c, 2e);
    e. reciting parameters (time, pressure, temperature, etc.) for each type of sterilizer (1a, 1b, 2c);
    f. stating necessary factors for wrapping and packaging items for sterilization (1a, 1b, 2c);
    g. naming various control monitors used in the sterilization process (1a, 1b, 2c, 2e).
3. Explain wound healing and wound closure by
    a. naming different types of surgical incisions and the procedures performed through each (1a, 1b, 2c);
    b. identifying mechanisms of wound healing and how wounds are classified (1a, 1b, 2c);
    c. listing functions of suturing materials (1a, 1b, 2c);
    d. differentiating among major types of suturing materials (1a, 1b, 2c);
    e. classifying suturing materials according to types (1a, 1b, 2c);
    f. listing most commonly used surgical needles and their uses (1a, 1b, 2c).

SRGT 1441 - Surgical Procedures I

General

Course Key
7533

Course Rubric	Course Number	Course Title
SRGT	1441	Surgical Procedures I

Semester Credit Hours	Lecture Hours	Lab Hours
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0) Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Required Prerequisites: SRGT-1405, SRGT-1409, and SRGT-1266

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

TAKE SRGT-1405, SRGT-1409, SRGT-1266
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): SRGT 1405, SRGT 1409, and SRGT 1266

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Relate the specific anatomy and pathology to indications for selected surgical procedures; summarize patient preparation for selected surgical procedures; select instruments, equipment, and supplies and reconstruct the sequence for related surgical procedures; and identify expected outcomes and possible complications for surgical procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of surgical procedures of various specialties by
    a. describing various surgical specialties (1a, 1b, 2c);
    b. showing various surgical specialties (1a, 1b, 2c).
2. Demonstrate understanding of the indication for surgical interventions by
    a. explaining the indications for surgical interventions (1a, 1b, 2a);
    b. evaluating the indications for surgical interventions (1a, 1b, 2c).
3. Demonstrate understanding of surgical complications by
    a. explaining the various surgical complications (1a, 1b, 2c);
    b. determining the differences in surgical complications (1a, 1b, 2c);
    c. predicting the differences in surgical complications (1a, 1b, 2c).
4. Demonstrate understanding of instrumentation used in the operating room by
    a. identifying instrumentation in the operating room (1a, 1b, 2c);
    b. describing instruments in the operating room (1a, 1b, 2c).
5. Demonstrate understanding of the sequence involved in specialty procedures by
    a. identifying steps in specialty procedures (1a, 1b, 2c);
    b. describing steps in specialty procedures (1a, 1b, 2c).

SRGT 1442 - Surgical Procedures II

General

Course Key
7534

Course Rubric	Course Number	Course Title
SRGT	1442	Surgical Procedures II

Semester Credit Hours	Lecture Hours	Lab Hours
4	4	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-0). Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the cardiothoracic, peripheral vascular, plastic/reconstructive , ophthalmology, oral/maxillofacial, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisites: SRGT 1405, SRGT 1409, and SRGT 1266.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

srgt-1405 SRGT-1409 SRGT-1266
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): SRGT 1405, SRGT 1409, and SRGT 1266

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Relate anatomy and pathology to indications for selected surgical procedures; summarize patient preparation for selected surgical procedures; select instruments, equipment, and supplies and reconstruct the sequence for related surgical procedures; and identify expected outcomes and possible complications for surgical procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of surgical procedures of various specialties by
    a. describing various surgical specialties (1a, 1b, 2c);
    b. showing various surgical specialties (1a, 1b, 2c).
2. Demonstrate understanding of the indication for surgical interventions by
    a. explaining the indications for surgical interventions (1a, 1b, 2a);
    b. evaluating the indications for surgical interventions (1a, 1b, 2c).
3. Demonstrate understanding of surgical complications by
    a. explaining the various surgical complications (1a, 1b, 2c);
    b. determining the differences in surgical complications (1a, 1b, 2c);
    c. predicting the differences in surgical complications (1a, 1b, 2c).
4. Demonstrate understanding of instrumentation used in the operating room by
    a. identifying instrumentation in the operating room (1a, 1b, 2c);
    b. describing instruments in the operating room (1a, 1b, 2c).
5. Demonstrate understanding of the sequence involved in specialty procedures by
    a. identifying steps in specialty procedures (1a, 1b, 2c);
    b. describing steps in specialty procedures (1a, 1b, 2c).

SRGT 2230 - Professional Readiness

General

Course Key
15543

Course Rubric	Course Number	Course Title
SRGT	2230	Professional Readiness
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Overview of professional readiness for employment, attaining certification, and maintaining certification status.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate job-seeking skills; and identify strengths and weaknesses in preparation for the certification examination.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify strengths and weaknesses in preparation for the national certification examination by
    a. recalling information from the exam study guide (1a, 1b, 2c);
    b. producing a passing grade on the national exam (1a, 1b, 2c).
2. Discuss professional liability insurance coverage by
    a. describing benefits of personal liability coverage (1a, 1b, 2c);
    b. prioritizing the importance of having personal liability insurance (1a, 1b, 2c).
3. Prepare a professional employment portfolio by
    a. producing an introductory cover letter (1a, 1b, 2c, 2e);
    b. building an analytical resume (1a, 1b, 2c, 2e);
    c. assembling a reference list (1a, 1b, 2c, 2e);
    d. creating a post interview follow-up letter (1a, 1b, 2c, 2e).
4. Explain job interviewing techniques and procedures by
    a. identifying different types of interviews (1a, 1b, 2c);
    b. establishing a list of potential interview questions and answers (1a, 1b, 2c).
5. Describe various concepts of death and the professional and personal implications by
    a. discussing methods of dealing with death in the operating room (1a, 1b, 2c);
    b. forming personal methods to deal with death (1a, 1b, 2c).

SRGT 2466 - Practicum Surgical Technology

General

Course Key
12886

Course Rubric	Course Number	Course Title
SRGT	2466	Practicum - Surgical Technology/Technologist
Semester Credit Hours	**Lecture Hours**	**Lab Hours**
4	0	28

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-28). Practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Practice attitudes, work habits, and professionalism as presented in the Surgical Technology Student Code of Conduct by
    a. demonstrating respect for patients, hospital staff, and surgeons (1a, 1b, 1c, 2b, 2c);
    b. demonstrating respect for classmates and faculty (1a, 1b, 1c, 2b, 2c);
    c. practicing within limitations of professional scope of practice (1a, 1b, 2c);
    d. demonstrating the ability to consent to and accept constructive criticism (1a, 1b, 2c);
    e. demonstrating the ability to obtain assignments on time, dress in proper attire, and present self in an alert manner (1a, 1b, 2c).
2. Initiate proper preoperative processes by
    a. performing preliminary hand wash (1a, 1b, 2c);
    b. assembling supplies, equipment, and sutures needed (1a, 1b, 2c);
    c. displaying proper technique in scrubbing, gowning, and gloving (1a, 1b, 2c);
    d. performing proper procedure setup under direction of preceptor (1a, 1b, 2b, 2c);
    e. identifying sterile boundaries and areas (1a, 1b, 2c).
3. Display proper intraoperative techniques quickly by
    a. organizing surgical drapes in proper order of use (1a, 1b, 2c);
    b. performing proper instrument selection, passing, and anticipation during procedure (1a, 1b, 2c);
    c. reacting quickly and properly to breaks in sterile technique (1a, 1b, 2c);
    d. initiating surgical counts at appropriate times (1a, 1b, 2c);
    e. displaying strong surgical conscience at all times (1a, 1b, 2b, 2c).
4. Demonstrate the ability to perform proper postoperative procedures by
    a. displaying proper technique in application of wound dressing (1a, 1b, 2c);
    b. demonstrating removal of drapes, using correct technique (1a, 1b, 2c);
    c. displaying proper handling of surgical specimens (1a, 1b, 2c);
    d. performing removal of dirty instruments to decontamination room (1a, 1b, 2c);
    e. following technique for proper disposal of sharps (1a, 1b, 2c);
    f. displaying initiative in preparing for next procedure (1a, 1b, 2c).

SRVY 1301 - Introduction to Surveying

General

Course Key
11140

Course Rubric
SRVY

Course Number
1301

Course Title
Introduction to Surveying

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3). An overview of the surveying profession. The history of surveying and its impact on the world. Review of the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on surveying procedures and the limitation of errors. Calculation to determine precision and error of closure.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the surveying profession and its historical impact; apply basic surveying terminology, surveying equipment and measurements; list the steps required in performing a survey; apply mathematical principles and use scientific calculators to calculate survey error and adjustment.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate understanding of the basic concepts, principles, and fundamentals of surveying by
    a. discussing the history of surveying and its application (1a, 1b);
    b. identifying the different classification and types of surveying (1a, 1b).
2. Demonstrate an understanding of the basic math required in surveying by
    a. solving trigonometry and geometry problems (1a, 1b);
    b. applying principles of trigonometry to surveying problems (1a, 1b, 2b, 2c);
    c. calculating unit conversion used in surveying (1a, 1b).
3. Demonstrate an understanding of the scope and responsibilities of a field engineer by
    a. learning fieldworks basics such as safety, note keeping, and instrument care (1a, 1b, 1c, 2b, 2c);
    b. operating surveying equipment such as level, theodolite, total station, EDM, and surveying tape (1a, 1b, 1c, 2a, 2b, 2c, 2e).
4. Demonstrate an understanding of the different methods of determining errors in observations by
    a. differentiating precision and accuracy (1a, 1b);
    b. discussing the different source of errors (1a, 1b);
    c. calculating standard deviation as a means of determining limitation of errors (1a, 1b).
5. Demonstrate an understanding of the different methods of horizontal and vertical measurements by
    a. working with the equipment used in horizontal and vertical measurements (1a, 1b);
    b. applying the different methods of horizontal and vertical measurements (1a, 1b).
6. Demonstrate an understanding of the different methods of calculating areas by
    a. performing calculation of an area of a plot of land using different formulas (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. operating surveying equipment to determine observations to calculate area (1a, 1b, 1c, 2a, 2b, 2c, 2e).
7. Demonstrate an understanding of horizontal and vertical angle measurements by
    a. operating surveying equipment to determine vertical and horizontal measurement (1a, 1b);
    b. differentiating bearing and azimuth (1a, 1b);
    c. calculating latitude and departure (1a, 1b, 2c);
    d. differentiating open and closed traverse (1a, 1b);
    e. calculating areas of closed traverse (1a, 1b, 2c).
8. Demonstrate an understanding of evaluating site condition and topography for sustainable construction by
    a. evaluating a project site (1a, 1b, 2a, 2b, 2c);
    b. discussing the process of developing a project site (1a, 1b);
    c. identifying various remediation strategies of Brownfield site (1a, 1b).

STSC 0111 - Transition to College Success

General

Course Key
16230

Course Rubric
STSC

Course Number
0111

Course Title
Transition to College Success

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Description
(1-1-0) Psychology of learning and success. Examines factors that underlie learning, success, and personal development in higher education. Topics covered include information processing, memory, strategic learning, self-regulation, goal setting, motivation, educational and career planning, and learning styles. Techniques of study such as time management, listening and note taking, text marking, library and research skills, preparing for examinations, and utilizing learning resources are covered. Includes courses in college orientation and developments of students' academic skills that apply to all disciplines. This is a developmental course and cannot be used to fulfill degree requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TAME 0001 - College of Engineering

General

Course Key
15495

Course Rubric
TAME

Course Number
0001

Description
Track credit for Texas A&M Engineering Partnership for NSC.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TAME 0012 - Engineering Lab 1 - Computation

General

Course Key
15041

Course Rubric
TAME

Course Number
0012

Semester Credit Hours
2

Description
Track credit for Texas A&M Engineering Partnership for NSC.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TAME 0021 - College of Engineering

General

Course Key
15046

Course Rubric
TAME

Course Number
0021

Semester Credit Hours
1

Description
Track credit for Texas A&M Engineering Partnership for NSC.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TAME 0026 - Experimental PHYS & ENGR Lab II - Mech

General

Course Key
15042

Course Rubric
TAME

Course Number
0026

Semester Credit Hours
2

Description
Track credit for Texas A&M Engineering Partnership for NSC.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TAME 0027 - Experimental PHYS/ENGR Lab III-Elec/Mag

General

Course Key
15043

Course Rubric
TAME

Course Number
0027

Semester Credit Hours
2

Description
Track credit for Texas A&M Engineering Partnership for NSC.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TAME 0032 - Industrial and Systems Engineering

General

Course Key
15044

Course Rubric
TAME

Course Number
0032

Semester Credit Hours
3

Description
Track credit for Texas A&M Engineering Partnership for NSC.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TECA 1303 - Families, School and Community

General

Course Key
16231

Course Rubric
TECA

Course Number
1303

Course Title
Families, School and Community

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2) A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. The course includes a minimum of 16 hours of field experiences.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TECA 1311 - Educating Young Children

General

Course Key
16232

Course Rubric
TECA

Course Number
1311

Course Title
Educating Young Children

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2). An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations; and the course includes a minimum of 16 hours of field experiences.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TECA 1318 - Wellness of The Young Child

General

Course Key
16233

Course Rubric
TECA

Course Number
1318

Course Title
Wellness of the Young Child

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-2-2) A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth to age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. Course includes a minimum of 16 hours of field experiences.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TECA 1354 - Child Growth and Development

General

Course Key
16234

Course Rubric
TECA

Course Number
1354

Course Title
Child Growth and Development

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Academic Course Guide Manual (ACGM)

Description
(3-3-0) A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

TECM 1301 - Industrial Mathematics

General

Course Key
14677

Course Rubric
TECM

Course Number
1301

Course Title
Industrial Mathematics

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Math skills applicable to industry occupations. Includes fraction and decimal manipulation, measurement, percentage, and problem solving techniques for equations and ratio/proportion applications.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Convert between decimals and fractions; use measuring tools; calculate ratios and proportions in a technical application; transpose linear equations to solve for unknowns.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of how basic arithmetic operations are used in the technical fields by
    a. demonstrating the ability to add, subtract, multiply, and divide integers (1a, 1b);
    b. solving technical applications and problems involving integers (1a, 1b, 2c).
2. Demonstrate an understanding of basic geometric operations by
    a. calculating geometric perimeter, area (not circles), and volume (1a, 1b, 2c);
    b. identifying types of angles and triangles (1a, 1b, 2c);
    c. solving technical application problems involving geometric concepts (1a, 1b, 2c).
3. Demonstrate an understanding of mathematic operations using fractions by
    a. converting improper fractions to mixed numbers (1a, 1b, 2c);
    b. converting mixed numbers into improper fractions (1a, 1b, 2c);
    c. reducing or simplifying fractions (1a, 1b, 2c);
    d. demonstrating the ability to add, subtract, multiply, and divide signed fractions (1a, 1b, 2c);
    e. simplifying complex fractions (1a, 1b, 2c);
    f. solving algebraic equations involving fractions (1a, 1b, 2c);
    g. solving application problems involving fractions (1a, 1b, 2c).
4. Demonstrate an understanding of mathematical operations using decimals by
    a. demonstrating the ability to add, subtract, and multiply signed decimals (1a, 1b, 2c);
    b. rounding decimals and whole numbers (1a, 1b, 2c);
    c. dividing decimals (1a, 1b, 2c);
    d. solving decimal applications involving technical problems (1a, 1b, 2c);
    e. converting fractions to decimals (1a, 1b, 2c);
    f. converting decimals to fractions (1a, 1b, 2c);
    g. ordering and comparing fractions to decimals (1a, 1b, 2c).
5. Demonstrate an understanding of ratios and proportions by
    a. stating ratios in reduced fractional form (1a, 1b, 2c);
    b. solving proportions and proportion applications (1a, 1b, 2c);
    c. solving technical application problems involving ratios and proportions, including converting numbers to different units of measurement (1a, 1b, 2c);
    d. converting English units to metric units and metric units to English units (1a, 1b, 2c).
6. Demonstrate an understanding of percentages by
    a. converting percent to decimal (1a, 1b, 2c);
    b. converting decimal to percent (1a, 1b, 2c);
    c. converting percent to fraction (1a, 1b, 2c);
    d. converting fraction to percent (1a, 1b, 2c);
    e. solving technical application problems involving percent (1a, 1b, 2c).

TECM 1303 - Technical Calculations

General

Course Key
9949

Course Rubric
TECM

Course Number
1303

Course Title
Technical Calculations

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Specific mathematical calculations required by business, industry, and health occupations.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Solve technical math problems using addition, subtraction, multiplication, and division; convert between whole numbers, fractions, mixed numbers, and decimals; perform calculations involving percents, ratios, and proportions; and convert numbers to different units of measurement (standard and/or metric).

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of how basic arithmetic operations are used in the technical fields by
    a. demonstrating the ability to add, subtract, multiply, and divide integers (1a, 1b);
    b. solving technical applications and problems involving integers (1a, 1b, 2c).
2. Demonstrate an understanding of basic geometric operations by
    a. calculating geometric perimeter, area (not circles), and volume (1a, 1b, 2c);
    b. identifying types of angles and triangles (1a, 1b, 2c);
    c. solving technical application problems involving geometric concepts (1a, 1b, 2c).
3. Demonstrate an understanding of mathematic operations using fractions by
    a. converting improper fractions to mixed numbers (1a, 1b, 2c);
    b. converting mixed numbers into improper fractions (1a, 1b, 2c);
    c. reducing or simplifying fractions (1a, 1b, 2c);
    d. demonstrating the ability to add, subtract, multiply, and divide signed fractions (1a, 1b, 2c);
    e. simplifying complex fractions (1a, 1b, 2c);
    f. solving algebraic equations involving fractions (1a, 1b, 2c);
    g. solving application problems involving fractions (1a, 1b, 2c).
4. Demonstrate an understanding of mathematical operations using decimals by
    a. demonstrating the ability to add, subtract, and multiply signed decimals (1a, 1b, 2c);
    b. rounding decimals and whole numbers (1a, 1b, 2c);
    c. dividing decimals (1a, 1b, 2c);
    d. solving decimal applications involving technical problems (1a, 1b, 2c);
    e. converting fractions to decimals (1a, 1b, 2c);
    f. converting decimals to fractions (1a, 1b, 2c);
    g. ordering and comparing fractions to decimals (1a, 1b, 2c).
5. Demonstrate an understanding of ratios and proportions by
    a. stating ratios in reduced fractional form (1a, 1b, 2c);
    b. solving proportions and proportion applications (1a, 1b, 2c);
    c. solving technical application problems involving ratios and proportions, including converting numbers to different units of measurement (1a, 1b, 2c);
    d. converting English units to metric units and metric units to English units (1a, 1b, 2c).
6. Demonstrate an understanding of percentages by
    a. converting percent to decimal (1a, 1b, 2c);
    b. converting decimal to percent (1a, 1b, 2c);
    c. converting percent to fraction (1a, 1b, 2c);
    d. converting fraction to percent (1a, 1b, 2c);
    e. solving technical application problems involving percent (1a, 1b, 2c).

TRVM 1201 - Customer Sales and Service

General

Course Key
7816

Course Rubric
TRVM

Course Number
1201

Course Title
Customer Sales and Service

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0). Practical information and techniques to create excellent customer sales and service unique to the travel public.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Define customer service; identify the elements and steps involved and how they relate directly to sales; define the principles of selling travel; list questions that qualify a client; and identify the process to close a successful sale. Explain the steps of problem solving to effectively handle customer challenges; and define internal and external customer service and how it impacts the success of a business and customer retention.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comprehend the importance of customer service in the hospitality business by
    a. explaining the contribution of customer service as it relates to the traveling public (1a, 1b);
    b. identifying the internal customers in different hospitality businesses (1a, 1b);
    c. identifying the external customers in different hospitality businesses (1a, 1b);
    d. comprehending the difference between customer service and hospitality (1a, 1b).
2. Comprehend the different elements that contribute to customer service by
    a. identifying the service expectations for different segments of the hospitality industry (1a, 1b);
    b. giving examples of the customer service elements and how they directly relate to sales (1a, 1b);
    c. explaining how the different elements of a customer service experience are interrelated (1a, 1b);
    d. comprehending the effects of poor service (1a, 1b);
    e. identifying the benefits of superior service (1a, 1b).
3. Identify the important steps in effectively handling customer challenges by
    a. defining the different participants in customer service (1a, 1b);
    b. explaining the process of communication in customer service (1a, 1b);
    c. explaining how differences in expectations can take place in the hospitality industry (1a, 1b);
    d. comprehending the different methods of handling customer challenges (1a, 1b).
4. Comprehend the recruiting process and how it impacts customer service by
    a. explaining the steps in the recruiting process (1a, 1b);
    b. explaining the importance of forecasting staffing needs (1a, 1b);
    c. defining the factors that encompass a proper forecast (1a, 1b);
    d. identifying the benefits of different types of forecast related to recruiting (1a, 1b);
    e. explaining the benefits of recruiting from internal sources (1a, 1b);
    f. explaining the benefits of recruiting from external sources (1a, 1b).

TRVM 1300 - Introduction to Travel and Tourism

General

Course Key
11786

Course Rubric	Course Number	Course Title
TRVM	1300	Introduction to Travel and Tourism

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0)An overview of the travel and tourism industry. Emphasis on travel careers and the impact on society.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the qualifications needed for the many careers in the travel and tourism industry; discuss the history and growth of travel and tourism and how they relate to the marketplace; define the role of governments in the travel industry and identify how tourism is an important source of revenue for a destination; describe types of geography as it relates to travelers, and identify types of travel and travelers; identify the components of the travel and tourism industry, define the channels of distribution, and discuss how the travel product is promoted and marketed.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Define key terms used in the travel business (1a, 1b).
2. Explain what each major segment of the travel industry represents (1a, 1b).
3. Describe how travel is typically sold (1a, 1b).
4. Analyze different kinds of consumers and what satisfies their travel needs (1a, 1b).
5. Define airline industry terminology (1a, 1b).
6. Explain how the various types of aircraft used in commercial aviation differ (1a, 1b).
7. Categorize airline types (1a, 1b).
8. Describe what factors affect air ticket prices (1a, 1b).
9. Decipher the codes of major airports (1a, 1b).
10. Describe airport procedures (1a, 1b).
11. Classify the many kinds of lodging (1a, 1b).
12. Define key terms used in the lodging industry (1a, 1b).
13. Explain the many factors that determine the cost of lodging (1a, 1b).
14. Describe how lodging is sold (1a, 1b).
15. Explain how the food services industry relates to hospitality, travel, and tourism (1a, 1b).
16. Explain why consumers use travel agents (1a, 1b).
17. Describe the different kinds of travel agencies (1a, 1b).
18. Contrast the skills of a leisure agent with one who deals primarily with business travelers (1a, 1b).
19. List the sources that agents use to obtain information (1a, 1b).
20. Describe the many kinds of tours that exist (1a, 1b).
21. Explain why tour manager jobs are in such demand (1a, 1b).
22. Determine what motivates people to take a tour (1a, 1b, 2c).
23. Explain how tours are priced and sold (1a, 1b).
24. Determine why people go on cruises (1a, 1b, 2c).
25. Describe different types of cruise lines and ships (1a, 1b).
26. Reveal what a cruise experience is like (1a, 1b).
27. Explain how cruises are priced and sold (1a, 1b).
28. Explain the motives behind renting cars and choosing rail travel (1a, 1b).
29. Describe the car rental and rail travel industries and experiences (1a, 1b).
30. Interpret how car rentals and train travel are priced (1a, 1b, 2c).
31. Identify the many types of destination marketing organizations and what they typically do (1a, 1b).
32. Describe how other suppliers fit into the travel industry landscape (1a, 1b).
33. Relate geographic principles to travel concerns (1a, 1b).
34. Define major geographic- and destination-related terms (1a, 1b).
35. Locate the world's significant tourist destinations (1a, 1b).
36. Identify where some of the world's great attractions are (1a, 1b).
37. Explain the different types of marketing and the six steps that the marketing cycle usually requires (1a, 1b).
38. Distinguish between transactional and consultative selling, and apply the steps that each entails (1a, 1b, 3a).
39. Describe how service is separate from, and overlaps, sales (1a, 1b).
40. Practice the seven steps necessary to achieve service excellence (1a, 1b).
41. Identify what CRS and GDS systems do and how these tools support the travel industry (1a, 1b).
42. Explain how the internet has changed the way people buy travel (1a, 1b).
43. Describe how social media has affected the relationship between customer and supplier (1a, 1b).
44. Clarify the many applications CRM programs have in the travel business (1a, 1b).
45. Explain the procedures and documents associated with border crossings (1a, 1b).
46. Interpret and apply the basic principles of currencies and exchange rates (1a, 1b).
47. Address customer health and safety concerns (1a, 1b).
48. Prepare for the changes in travel to come (1a, 1b).

TRVM 1327 - Special Events Design

General

Course Key
6424

Course Rubric	Course Number	Course Title
TRVM	1327	Special Events Design

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0). The development of a special event from the conceptual stage through completion. Emphasis on industry terminology, factors to consider when planning a special event, and contingency plans.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify key terms used in planning special events. Determine event objectives and budget requirements. Compare the differences in planning a special event and a convention/meeting. Identify suppliers including off-site venue, food and beverage providers, sanitation, entertainment, and security. Determine permits, insurance, liabilities associated with planning a special event.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comprehend the roots and trends in the special event industry by
    a. comprehending and understanding the historic roots of celebration (1a, 1b);
    b. identifying the demographic changes affecting global event management growth (1a, 1b);
    c. identifying new and emerging career opportunities (1a, 1b);
    d. identifying industry certification programs (1a, 1b).
2. Identify the basic models utilized in special event planning by
    a. recalling the five phases of the modern event management process (1a, 1b, 2a);
    b. identifying a SWOT analysis (1a, 1b);
    c. comprehending the importance of a needs assessment (1a, 1b, 2a);
    d. identifying how stakeholders best receive information (1a, 1b, 2a, 2b);
    e. comprehending a gap analysis (1a, 1b).
3. Explain how to develop and implement the event plan by
    a. demonstrating how to conduct research for a special event (1a, 1b, 2c);
    b. comprehending how to design a program creatively (1a, 1b);
    c. identifying the methodology to develop an appropriate theme for an event (1a, 1b, 2d, 2e);
    d. comprehending how to establish and manage an effective strategic plan (1a, 1b).
4. Comprehend the role of event leadership through human resource and time management by
    a. identifying the contributions of human resources in the special event business (1a, 1b);
    b. identifying the leadership characteristics in an event leader (1a, 1b, 2c);
    c. comprehending how to overcome communication challenges (1a, 1b, 1c);
    d. recalling the proper procedures used for recruiting quality staff and volunteers (1a, 1b, 2d);
    e. comprehending how to develop effective organizational charts (1a, 1b);
    f. identifying how to improve time management (1a, 1b).
5. Comprehend basic financial administration by
    a. comprehending basic event management financial and accounting terminology (1a, 1b);
    b. recalling the importance of the event balance sheet and income statement (1a, 1b);
    c. comprehending the method of estimate break-even point for an event (1a, 1b, 2c);
    d. identifying how to develop a realistic budget (1a, 1b).
6. Comprehend how to manage vendors for a special event by
    a. recalling what an RFP is and how it is to be utilized with vendors (1a, 1b);
    b. comprehending how to source vendors (1a, 1b);
    c. demonstrating how to coordinate technical resources, including audio visual, lighting, sound, and special effects (1a, 1b);
    d. comprehending how to construct a production schedule (1a, 1b).
7. Identify the potential liabilities associated with different events by
    a. identifying the standard event regulations and procedures (1a, 1b);
    b. distinguishing the different types of legal agreements in the special event segment (1a, 1b);
    c. comprehending how to obtain the necessary permits for a special event (1a, 1b);
    d. comprehending how to develop and manage risk management procedures (1a, 1b).

TRVM 2301 - Intro to Convention/Meeting Management

General

Course Key
12993

Course Rubric	Course Number	Course Title
TRVM	2301	Introduction to Convention/Meeting Management

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Overview of the meetings and convention industry and the various aspects and skills involved in planning and managing meetings, conventions, and expositions. Emphasis on types of meetings, markets, industry suppliers, budget and program planning, site selection and contract negotiations, registration and housing, food and beverage requirements, function and meeting room setup, and audiovisual requirements.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Review basic site-selection factors; identify major aspects of contract negotiations; explain housing requirements and meeting registration procedures. Review basic food and beverage factors; identify basic meeting function set-ups and requirements; and analyze post-meeting evaluations.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Comprehend the roots and trends in the special event industry by
    a. comprehending and understanding the historic roots of celebration (1a, 1b);
    b. identifying the demographic changes affecting global event management growth (1a, 1b);
    c. identifying new and emerging career opportunities (1a, 1b);
    d. identifying industry certification programs (1a, 1b).
2. Identify the basic models utilized in special event planning by
    a. recalling the five phases of the modern event management process (1a, 1b, 2a);
    b. identifying a SWOT analysis (1a, 1b);
    c. comprehending the importance of a needs assessment (1a, 1b, 2a);
    d. identifying how stakeholders best receive information (1a, 1b, 2a, 2b);
    e. comprehending a gap analysis (1a, 1b).
3. Explain how to develop and implement the event plan by
    a. demonstrating how to conduct research for a special event (1a, 1b, 2c);
    b. comprehending how to design a program creatively (1a, 1b);
    c. identifying the methodology to develop an appropriate theme for an event (1a, 1b, 2d, 2e);
    d. comprehending how to establish and manage an effective strategic plan (1a, 1b).
4. Comprehend the role of event leadership through human resource and time management by
    a. identifying the contributions of human resources in the special event business (1a, 1b);
    b. identifying the leadership characteristics in an event leader (1a, 1b, 2c);
    c. comprehending how to overcome communication challenges (1a, 1b, 1c);
    d. recalling the proper procedures used for recruiting quality staff and volunteers (1a, 1b, 2d);
    e. comprehending how to develop effective organizational charts (1a, 1b);
    f. identifying how to improve time management (1a, 1b).
5. Comprehend basic financial administration by
    a. comprehending basic event management financial and accounting terminology (1a, 1b);
    b. recalling the importance of the event balance sheet and income statement (1a, 1b);
    c. comprehending the method of estimate break-even point for an event (1a, 1b, 2c);
    d. identifying how to develop a realistic budget (1a, 1b).
6. Comprehend how to manage vendors for a special event by
    a. recalling what an RFP is and how it is to be utilized with vendors (1a, 1b);
    b. comprehending how to source vendors (1a, 1b);
    c. demonstrating how to coordinate technical resources, including audio visual, lighting, sound, and special effects (1a, 1b);
    d. comprehending how to construct a production schedule (1a, 1b).
7. Identify the potential liabilities associated with different events by
    a. identifying the standard event regulations and procedures (1a, 1b);
    b. distinguishing the different types of legal agreements in the special event segment (1a, 1b);
    c. comprehending how to obtain the necessary permits for a special event (1a, 1b);
    d. comprehending how to develop and manage risk management procedures (1a, 1b).

TRVM 2345 - Advanced Topics in Tourism

General

Course Key
11787

Course Rubric	Course Number	Course Title
TRVM	2345	Advanced Topics in Tourism

Semester Credit Hours	Lecture Hours	Lab Hours
3	3	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Provides the students with an in-depth look into the aspects of concierge, destination management companies, incentives meeting and travel planning, attractions management, special event, festival planning, and eco-tourism. Included are field trips, guest speakers, and case studies.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: List the duties and responsibilities of a concierge; examine the role that destination management companies play in the tourist industry; explain the fundamentals of incentive travel planning and explain the fundamentals of special event planning and festivals; solve problems related to travel and event planning; and support eco-tourism development.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Analyze the debate on the acceptance of sustainable tourism, exploring barriers and recommended solutions by
    a. defining sustainable tourism (1a, 1b);
    b. identifying and exploring barriers to sustainable tourism (1a, 1b, 1c, 2a, 2d);
    c. recommending solutions for sustainable tourism (1b, 1c, 2c).
2. Define the differences in sustainable and eco-tourism, determine the role of ecology in sustainable tourism, and critically evaluate the impact this has had on the events industry by
    a. defining the differences in sustainable and eco-tourism (1a, 1b, 2d, 2c, 2d);
    b. understanding the role of eco-tourism on the events industry (1a, 1b, 2a, 2c, 2d);
    c. demonstrating the role of ecology in sustainable tourism (1a, 1b, 2a, 2d);
    d. evaluating critically the impact of eco-tourism on the events industry (1a, 1b, 2a, 2c).
3. Describe the stakeholders and their influence on tourism development, defining how this has shaped tourism policy by
    a. understanding who the stakeholders are by evaluating where they live and work (1a, 1b, 2b, 2d);
    b. evaluating the ethical considerations of policy within the development of tourism (1a, 1b, 2b, 2c);
    c. understanding the role of the stakeholder and their influence on tourism development in the city, state, and/or national arena (1a, 2a, 2d).
4. Report on and critique sustainable tourism among the different geographical areas by
    a. organizing and monitoring sustainable tourism practices in geographical areas (1a, 2a, 2d);
    b. understanding how climate change relates to sustainable tourism within each of the geographical areas (1a, 1b, 2a, 2c);
    c. acquiring and evaluating information with respect to the technologies available (1a, 1b, 2e).
5. Identify existing destination assets of a destination and determine its competitive advantage and sustainable principles by
    a. monitoring current trends, including advantages/disadvantages of the destination (1a, 1b, 2a, 2c);
    b. understanding sustainable principles within each geographic region (1a, 2a, 2c).
6. Identify and report on sustainable trends within major hospitality/tourism-based companies by
    a. organizing sustainable tourism trends by financial information (1a, 2a, 2d).
7. Analyze methods to reduce the negative impact to the environment of a host destination due to tourism development by
    a. understanding the local authorities and consumer agencies that could help a host destination reduce the negative impact of sustainable tourism (1a, 1c, 2a, 2d).
8. Evaluate ethical considerations of the environment and how they influence a host destination (1a, 1b, 2b, 2d).

VIRT 1310 - Principles Interventional Radiology I

General

Course Key
13717

Course Rubric
VIRT

Course Number
1310

Course Title
Principles of Interventional Radiology I

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Introduction to the diagnostic procedures used in the interventional lab including patient preparation and monitoring, angiographic equipment set-up, and vascular procedures.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Vascular-Interventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: Demonstrate the patient preparation for a vascular diagnostic procedure; describe the procedure for monitoring a patient during a vascular procedure; operate the angiographic equipment; and perform the setup of equipment and supplies for a vascular diagnostic procedure.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate ability to prepare patient by
    a. explaining procedure and radiation risks to the patient (1a, 1b, 1c, 2b, 2c, 2d);
    b. explaining selection and assessment of access site (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    c. explaining sterile cleansing and draping process of selected access site (1a, 1b, 1c, 2a, 2b, 2c, 2d).
2. Describe the procedure for monitoring a patient during a vascular procedure by
    a. connecting the patient to physiologic monitoring equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining the normal and abnormal physiologic monitoring values (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    c. explaining why and how these values may change during a procedure (1a, 1b, 1c, 2b, 2c, 2d, 2e).
3. Demonstrate understanding and ability to set up and operate angiographic equipment by
    a. explaining the application, advantages, and disadvantages of ceiling mounted, floor mounted and biplane units (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining operation of table side controls for table, detector, and electronic functions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining application of table side controls for table, detector, and electronic functions (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge of various supplies utilized in the interventional suite by
    a. describing types and characteristics of catheters, guidewires, needles, vascular access devices, accessory devices, and closure devices (1a, 1b, 1c, 2a, 2b, 2c).
5. Demonstrate ability to set up for vascular diagnostic procedures in the interventional lab by
    a. selecting appropriate supplies based upon procedure to be performed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. selecting appropriate angiographic equipment, accessory equipment, and technical factors based upon procedure to be performed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining process of creating and maintaining a sterile field throughout entire procedure (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

VIRT 1320 - Interventional Radiology Equipment/Meth

General

Course Key
13718

Course Rubric
VIRT

Course Number
1320

Course Title
Interventional Radiology Equipment and Methodology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) The operation of interventional radiology equipment, focusing on routine protocols, basic principles, theory, electronics, and instrumentation.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Vascular-Interventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: Describe the operation of interventional radiology equipment, define routine protocols used in basic vascular procedures; describe the basic principles used in the vascular interventional lab; and recall the electronics and instrumentation used in the vascular interventional lab.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate knowledge and understanding of the automatic pressure injector by
    a. identifying the parts and their functions (1a, 1b, 1c, 2b, 2c, 2d);
    b. describing application for intra-procedural use (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. selecting appropriate values for patient injection (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate knowledge and understanding of ultrasound equipment by
    a. identifying the parts and their functions (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    b. explaining probe selection, system controls, and cleaning (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate knowledge and understanding of interventional radiology imaging equipment by
    a. explaining the operation and application of the various types (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining the cleaning and preventive maintenance procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. explaining the mechanical functions and protocols for use (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. explaining the electronic functions, instrumentation, and protocols for use (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge of various supplies utilized in the interventional suite by
    a. describing types and characteristics of catheters, guidewires, needles, vascular access devices, accessory devices, and closure devices (1a, 1b, 1c, 2a, 2b, 2c).
5. Describe the principles of x-ray production and image acquisition by
    a. describing the functions that can be used to alter imaging (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

VIRT 2264 - Practicum Vascular Intervention Tech Sci

General

Course Key
13719

Course Rubric
VIRT

Course Number
2264

Course Title
Practicum - Vascular Interventional Technology Science

Semester Credit Hours
2

Lecture Hours
0

Lab Hours
15

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-0-15) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Vascular-Interventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity, or culture (1a, 1b, 1c, 2b, 2c, 2d).
2. Demonstrate competency while participating in interventional procedures under the supervision of qualified interventional radiology staff by
    a. applying principles of radiation protection to achieve ALARA (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. applying and maintaining the appropriate medical asepsis and sterile technique (1a, 1b, 1c, 2a, 2b, 2c);
    c. maintaining patient confidentiality standards and meeting HIPAA requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to recall and apply previously learned didactic, lab, and clinical experiences by
    a. accomplishing appropriate number of procedure repetitions as listed on the ARRT Vascular-Interventional Radiography Clinical Experience Requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. accomplishing task items as listed on the ARRT Vascular-Interventional Radiography Task Inventory (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

VIRT 2310 - Principles Interventional Radiology II

General

Course Key
13720

Course Rubric
VIRT

Course Number
2310

Course Title
Principles of Interventional Radiology II

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Continuing coverage of interventional radiology imaging techniques, focusing on more advanced angiographic procedures. Image quality assurance and radiation protection are emphasized. Required Prerequisite: VIRT-1310

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take VIRT-1310;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VIRT 1310

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Vascular-Interventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: Perform the setup of advanced vascular diagnostic procedures in the interventional lab; perform quality assurance activities to ensure proper patient care, image quality, and equipment function; and demonstrate radiation safety practices required in the interventional lab.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate ability to play an active role in the performance of select vascular and nonvascular interventional procedures by
    a. explaining the roles and duties of each team member (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Identify and demonstrate ability to properly use radiation safety equipment to reduce dose for patients and staff by
    a. demonstrating donning appropriately sized lead apron and accessories (1a, 1b, 1c, 2a);
    b. demonstrating positions of mobile lead barriers (1a, 1b, 1c, 2a, 2b, 2d);
    c. explaining electronic radiation limiting devices (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate understanding and ability to position the patient and associated accessories to ensure intra-procedural patient care, image quality, and equipment function by
    a. describing the position of the patient based upon procedure being performed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. describing location of monitoring leads and cables as to not interfere with sterile field and imaging equipment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. describing positioning aids used for patient safety and comfort (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Demonstrate knowledge of various supplies utilized in the interventional suite by
    a. describing types of catheters, stents, wires, and balloons associated with vascular and nonvascular advanced procedures (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
5. Demonstrate ability to set up for advanced diagnostic procedures in the interventional lab by
    a. selecting appropriate supplies based upon procedure to be performed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining process of creating and maintaining a sterile field throughout the procedure (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. selecting appropriate angiographic equipment, accessory equipment, and technical factors based upon procedure to be performed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

VIRT 2330 - Adv Vascular Interventional Procedures

General

Course Key
13721

Course Rubric
VIRT

Course Number
2330

Course Title
Advanced Vascular Interventional Procedures

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Exploration of advanced interventional radiology procedures and emerging applications. Required Prerequisite: VIRT-1310 and VIRT-2310

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take VIRT-1310 VIRT-2310;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VIRT 1310 and VIRT 2310

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Vascular-Interventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: Perform the setup of both advanced and therapeutic vascular interventional procedures; demonstrate the use of advanced vascular equipment; and identify emerging applications of vascular interventional procedures.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate ability to play an active role in the performance of advanced and therapeutic vascular and nonvascular interventional procedures by
    a. explaining the roles and duties of each team member (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
2. Demonstrate ability to set up for advanced and therapeutic vascular and nonvascular interventional procedures by
    a. explaining selection of appropriate supplies based upon the procedure to be performed (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. explaining selection of appropriate accessory equipment based upon the procedure to be performed (1a, 1b, 1c, 2a, 2b, 2d, 2e).
3. Demonstrate knowledge and understanding of various advanced vascular equipment by
    a. describing construction, function, and application of atherectomy devices, stent grafts, thrombectomy devices, and neuro interventional supplies (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
4. Differentiate between older technology and newer emerging applications for procedures performed in the vascular interventional suite (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

VIRT 2340 - Advanced Patient Care & Pathophysiology

General

Course Key
13722

Course Rubric
VIRT

Course Number
2340

Course Title
Advanced Patient Care and Pathophysiology for Interventional Radiology

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
2

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-2) Study of advanced and independent patient care skills, to include management of tubes and lines, advanced pharmacology interactions, and evaluation of the overall pathophysiological process of the patient.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the Vascular-Interventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: Perform advanced patient care skills; manage all tubes and lines found in or on patients that provide care and support; recognize pharmacologic interactions both wanted and adverse; and evaluate the patient for overall pathophysiologic process.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. List the required pre-procedural patient information required by
    a. describing lab values required and impact on procedure (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    b. describing vital signs required and impact on procedure (1a, 1b, 1c, 2b, 2c, 2d, 2e);
    c. describing allergies and pre-procedural treatment and impact on procedure (1a, 1b, 1c, 2b, 2c, 2d, 2e).
2. Demonstrate knowledge and understanding of infection control by
    a. defining terms related to infection control (1a, 1b, 1c, 2b, 2c, 2d);
    b. demonstrating use of proper personal protective equipment (PPE) for each type of isolation (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. defining and determining appropriate post procedural cleaning based on transmission method (1a, 1b, 1c, 2a, 2b, 2c, 2d).
3. Identify and describe specific types of tubes, lines, and collection devices; and appropriate management of each type (1a, 1b, 1c, 2b, 2c, 2d, 2e).
4. Describe contrast agent reactions and complications, and associated treatment (1a, 1b, 1c, 2b, 2c, 2d).
5. Demonstrate knowledge and understanding of medications used in the interventional lab by
    a. identifying types and routes (1a, 1b, 1c, 2b, 2c, 2d);
    b. describing indications and contraindications (1a, 1b, 1c, 2b, 2c, 2d);
    c. describing complications (1a, 1b, 1c, 2b, 2c, 2d).
6. Identify pathologies commonly seen in interventional radiology and explain the associated physiology (1a, 1b, 1c, 2b, 2c, 2d).

VIRT 2364 - Practicum Vasc Interventional Techn Scie

General

Course Key
13723

Course Rubric	Course Number	Course Title
VIRT	2364	Practicum - Vascular Interventional Technology Science

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the VascularInterventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity, or culture (1a, 1b, 1c, 2b, 2c, 2d).
2. Demonstrate competency while participating in interventional procedures under the supervision of qualified interventional radiology staff by
    a. applying principles of radiation protection to achieve ALARA (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. applying and maintaining the appropriate medical asepsis and sterile technique (1a, 1b, 1c, 2a, 2b, 2c);
    c. maintaining patient confidentiality standards and meeting HIPAA requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to recall and apply previously learned didactic, lab, and clinical experiences by
    a. accomplishing appropriate number of procedure repetitions as listed on the ARRT Vascular-Interventional Radiography Clinical Experience Requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. accomplishing task items as listed on the ARRT Vascular-Interventional Radiography Task Inventory (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

VIRT 2365 - Practicum Vasc Interventional Techn Scie

General

Course Key
13724

Course Rubric	Course Number	Course Title
VIRT	2365	Practicum - Vascular Interventional Technology Science

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	24

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-24) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
Course content is guided by the current Content Specifications for the VascularInterventional Radiography Examination from the American Registry of Radiologic Technologists and Cardiac-Interventional and Vascular-Interventional Curriculum from the American Society of Radiologic Technologists.

End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity, or culture (1a, 1b, 1c, 2b, 2c, 2d).
2. Demonstrate competency while participating in interventional procedures under the supervision of qualified interventional radiology staff by
    a. applying principles of radiation protection to achieve ALARA (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. applying and maintaining the appropriate medical asepsis and sterile technique (1a, 1b, 1c, 2a, 2b, 2c);
    c. maintaining patient confidentiality standards and meeting HIPAA requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Demonstrate the ability to recall and apply previously learned didactic, lab, and clinical experiences by
    a. accomplishing appropriate number of procedure repetitions as listed on the ARRT Vascular-Interventional Radiography Clinical Experience Requirements (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. accomplishing task items as listed on the ARRT Vascular-Interventional Radiography Task Inventory (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

VNSG 1116 - Nutrition

General

Course Key
12392

Course Rubric
VNSG

Course Number
1116

Course Title
Nutrition

Semester Credit Hours
1

Lecture Hours
1

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(1-1-0) Introduction to nutrients and the role of diet therapy in growth and development and in the maintenance of health. Required Prerequisite: BIOL-2401 Recommended Prerequisite: PSYC-2301 Recommended Co-Requisite:VNSG-1304, VNSG-1323, VNSG-1360

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

 # TAKE BIOL-2401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

 # TAKE VNSG-1304 VNSG-1323 VNSG-1360;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401 Recommended Prerequisite(s): PSYC 2301
Recommended Corequisite(s):VNSG 1304, VNSG 1323, VNSG 1360

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the basic nutrients; discuss the role of nutrients in growth and development and health maintenance; and identify diet therapy associated with disease processes.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Discuss the role of the nurse in promoting good nutrition (1a, 1b, 2b, 2c).
2. Explain six elements of essential nutrients and the incorporation in nursing practice (1a, 1b, 2b, 2c).
3. Explain the process of digestion, absorption, and metabolism (1a, 1b, 2b, 2c).
4. Evaluate function, role, and food sources of protein, carbohydrate, fat, fiber, vitamins, and minerals (1a, 1b, 2b, 2c).
5. Discuss changes in nutrient needs throughout the life cycle, and suggest ideas to ensure adequate nutrition during each stage of life (1a, 1b, 2a, 2b, 2c).
6. Analyze factors affecting food habits (1a, 1b, 2a, 2b, 2c).
7. Explain dietary management for a patient with gastrointestinal disorders, heart diseases, diabetes, kidney disease, cancer, and HIV (1a, 1b, 2a, 2b, 2c).
8. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. D. Knowledge 1–3
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1–4
        2. B. Knowledge 1, 4–12
        3. C. Knowledge 1–8
        4. D. Knowledge 1–5
        5. E. Knowledge 1–9, 11–13
        6. F. Knowledge 1–3
        7. G. Knowledge 1–3
        8. H. Knowledge 2–4
    c. Patient Safety Advocate:
        1. A. Knowledge 1–6
        2. B. Knowledge 2–4
    d. Member of the Health Care Team:
        1. A. Knowledge 1, 4, 5
        2. B. Knowledge 1–3
        3. C. Knowledge 1–4, 6–8
        4. D. Knowledge 1
        5. E. Knowledge 2–3

VNSG 1219 - Leadership and Professional Development

General

Course Key
12395

Course Rubric
VNSG

Course Number
1219

Course Title
Leadership and Professional Development

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. Required Prerequisite: VNSG-1429, VNSG-1331, VNSG-1461, and VNSG-1301 Recommended Co-Requisite: VNSG-1432, VNSG-1234, VNSG-1462, and VNSG-1230

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#Take VNSG-1429 VNSG-1331 VNSG-1461 VNSG-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

#Take VNSG-1432 VNSG-1234 VNSG-1462 VNSG-1230;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1429, VNSG 1331, VNSG 1461, and VNSG 1301
Recommended Corequisite(s): VNSG 1432, VNSG 1234, VNSG 1462, and VNSG 1230

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe the role of the licensed vocational nurse in multidisciplinary settings inclusive of basic principles of leadership and management; discuss the role of professional organizations and regulatory agencies; explain the Texas Board of Nursing Rules and Regulations and the Nurse Practice Act; and identify criteria and appropriate resources for continuing education.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the roles of the licensed vocational nurse in multi-disciplinary settings (1a, 1b, 2c, 2d).
2. Summarize the basic principles of leadership and management as they relate to the vocational nurse (1a, 1b, 1c, 2a, 2b, 2c).
3. Complete application process for licensure and the NCLEX-PN (1a, 1b, 2a, 2c, 2e).
4. Pass the Texas Jurisprudence Exam (1a, 1b, 2a, 2c, 2e).
5. Discuss the role of health care organizations and regulatory agencies (1a, 1b, 2c, 2d).
6. Develop a plan to improve the health care system in the United States (1a, 1b, 2a, 2c, 2d).
7. Explain the function of each health care team member (1a, 1b, 2a, 2c, 2d).
8. Apply understanding of nursing theory, nursing practice, and the concepts of transcultural nursing (1a, 1b, 2a, 2c, 2d).
9. Summarize ethical and legal issues applicable to practice (1a, 1b, 2a, 2c, 2d).
10. Develop a plan to resolve challenges in the workplaces (1a, 1b, 1c, 2a, 2b, 2c, 2d).
11. Discuss several methods to maintain competence to practice nursing (1a, 1b, 2a, 2c, 2d, 2e).
12. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 1–5
        4. D. Knowledge 1–4
        5. B. Clinical Judgement and Behaviors 1
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–12
        3. C. Knowledge 1–8
        4. D. Knowledge 1–5
        5. E. Knowledge 1–13
        6. F. Knowledge 1–3
        7. G. Knowledge 1–3
        8. H. Knowledge 1–7
    c. Patient Safety Advocate:
        1. A. Knowledge 1–6
        2. B. Knowledge 1–4
        3. C. Knowledge 1–2
        4. D. Knowledge 1
        5. E. Knowledge 1–2
        6. F. Knowledge 1–2
    d. Member of the Health Care Team:
        1. A. Knowledge 1–5
        2. B. Knowledge 1–4
        3. C. Knowledge 1–8
        4. D. Knowledge 1–4
        5. E. Knowledge 1–3
        6. F. Knowledge 1–4
        7. G. Knowledge 1–4

VNSG 1230 - Maternal-Neonatal Nursing

General

Course Key
15232

Course Rubric
VNSG

Course Number
1230

Course Title
Maternal-Neonatal Nursing

Semester Credit Hours
2

Lecture Hours
2

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) A study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing and neonatal care. Utilization of the nursing process and clinical judgement model in the assessment and management of the childbearing family. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium. Required Prerequisite: VNSG-1429, VNSG-1331, VNSG-1461, and VNSG-1301 Recommended Co-Requisite: VNSG-1432, VNSG-1234, VNSG-1462, and VNSG-1219

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1429 VNSG-1331 VNSG-1461 VNSG-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1432 VNSG-1234 VNSG-1219 VNSG-1462;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1429, VNSG 1331, VNSG 1461, and VNSG 1301
Recommended Corequisite(s): VNSG 1432, VNSG 1234, VNSG 1462, and VNSG 1219

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Discuss human reproduction and fetal development as related to the normal aspects of childbearing; identify common complications of the mother and newborn during prenatal, antenatal, and postnatal periods; and relate characteristics of the normal newborn and associated nursing interventions to meet identified health care needs utilizing the nursing process and clinical judgment model.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the roles and responsibilities of the practical nurse in caring for pregnant women and neonates in a variety of health care settings, including the effects of illness and medication in the pregnant woman, growing fetus, and the neonate (1a, 1b, 1c, 2b).
2. Analyze labor and explain physiologic and psychological responses to labor (1a, 1b, 1c, 2b).
3. Evaluate the intrapartum patient's needs and relate physiological, psychological, and cultural factors (1a, 1b, 1c, 2b).
4. Analyze extra-uterine adaptation and describe body system changes after birth to include the immune, hematologic, renal, endocrine, gastrointestinal, hepatic, and neurological systems (1a, 1b, 1c, 2b).
5. Analyze ongoing newborn needs including methods to promote newborn safety in the hospital (1a, 1b, 1c, 2b).
6. Apply knowledge and skills to support breastfeeding newborns (1a, 1b, 1c, 2b).
7. Analyze postpartum physiological and psychosocial needs (1a, 1b, 1c, 2b).
8. Describe physiological and psychosocial changes which occur during pregnancy (1a, 1b, 1c, 2b).
9. Compare methods of fetal surveillance during labor (1a, 1b, 1c, 2b).
10. Evaluate intrapartum pain management (1a, 1b, 1c, 2b).
11. Analyze labor induction/augmentation (1a, 1b, 1c, 2b).
12. Explain postpartum complications and risk factors (1a, 1b, 1c, 2b).
13. Explain obstetrical emergencies (1a, 1b, 1c, 2b).
14. Analyze antepartum complications (1a, 1b, 1c, 2b).
15. Explain newborn complications and risk factors (1a, 1b, 1c, 2b).
16. Identify common health promotion teaching needs (1a, 1b, 1c, 2b).
17. Compare contraception methods (1a, 1b, 1c, 2b).
18. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 1–5
        4. D. Knowledge 1–4
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–12
        3. C. Knowledge 1–8
        4. D. Knowledge 1–5
        5. E. Knowledge 1–13
        6. F. Knowledge 1–3
        7. G. Knowledge 1–3
        8. H. Knowledge 1–7
    c. Patient Safety Advocate:
        1. A. Knowledge 1–6
        2. B. Knowledge 1–4
        3. C. Knowledge 1–2
        4. D. Knowledge 1
        5. E. Knowledge 1–2
        6. F. Knowledge 1–2
    d. Member of the Health Care Team:
        1. A. Knowledge 1–5
        2. B. Knowledge 1–4
        3. C. Knowledge 1–8
        4. D. Knowledge 1–4
        5. E. Knowledge 1–3
        6. F. Knowledge 1–2, 4
        7. G. Knowledge 1–4

VNSG 1234 - Pediatrics

General

Course Key
15233

Course Rubric	Course Number	Course Title
VNSG	1234	Pediatrics

Semester Credit Hours	Lecture Hours	Lab Hours
2	2	0

Course Classification
Workforce Education Course Manual (WECM)

Description
(2-2-0) Study of the care of the pediatric patient and family during health and disease. Emphasis on growth and developmental needs utilizing the nursing process and clinical judgement model. Required Prerequisite: VNSG-1429, VNSG-1331, VNSG-1461, and VNSG-1301 Recommended Co-Requisite: VNSG-1432, VNSG-1462, and VNSG-1219

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1429 VNSG-1331 VNSG-1461 VNSG-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Co-requisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1432 VNSG-1219 VNSG-1462;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1429, VNSG 1331, VNSG 1461, and VNSG 1301
Recommended Corequisite(s): VNSG 1432, VNSG 1462, and VNSG 1219

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify safety principles related to childcare; discuss primary nursing care of the pediatric patient and family during health and disease; and apply concepts of growth and development to the care of pediatric patients utilizing the nursing process and clinical judgement model.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe potential roles for a pediatric nurse in a variety of pediatric settings (1a, 1b, 1c, 2b).
2. Describe adaptation of nursing principles of CPR and mediation administration, math application, and infection control in the pediatric population (1a, 1b, 1c, 2b, 2c, 2e).
3. Differentiate pediatric differences in various systems (1a, 1b, 1c, 2b).
4. Apply an age-appropriate approach to the assessment process (1a, 1b, 1c, 2b).
5. Identify factors which influence growth and development (1a, 1b, 1c, 2b).
6. List potential injurious situations by age group and determine measures to promote safety (1a, 1b, 1c, 2b).
7. Demonstrate an understanding of pediatric cognitive and emotional impairment (1a, 1b, 1c, 2b).
8. Demonstrate an understanding of pediatric central nervous system or sensory dysfunction (1a, 1b, 1c, 2b).
9. Utilize basic understanding of pediatric cardiac function and dysfunction (1a, 1b, 1c, 2b).
10. Demonstrate basic understanding of respiratory alterations in the pediatric patient (1a, 1b, 1c, 2b).
11. Demonstrate an understanding of immune system, blood, and lymphatic alterations, identifying special considerations in the pediatric patient (1a, 1b, 1c, 2b).
12. Demonstrate an understanding of pediatric gastrointestinal alterations (1a, 1b, 1c, 2b).
13. Demonstrate an understanding of pediatric genitourinary function and alterations (1a, 1b, 1c, 2b).
14. Demonstrate an understanding of pediatric integumentary alterations and clinical manifestations (1a, 1b, 1c, 2b).
15. Identify disorders which result in musculoskeletal dysfunction (1a, 1b, 1c, 2b).
16. Comprehend pediatric communicable disease principles, including vaccination and health promotion/disease prevention (1a, 1b, 1c, 2b).
17. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 1–5
        4. D. Knowledge 1–4
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–12
        3. C. Knowledge 1–8
        4. D. Knowledge 1–5
        5. E. Knowledge 1–13
        6. F. Knowledge 1–3
        7. G. Knowledge 1–3
        8. H. Knowledge 1–7
    c. Patient Safety Advocate:
        1. A. Knowledge 1–6
        2. B. Knowledge 1–4
        3. C. Knowledge 1–2
        4. D. Knowledge 1
        5. E. Knowledge 1–2
        6. F. Knowledge 1–2
    d. Member of the Health Care Team:
        1. A. Knowledge 1–5
        2. B. Knowledge 1–4
        3. C. Knowledge 1–8
        4. D. Knowledge 1–4
        5. E. Knowledge 1–3
        6. F. Knowledge 1–2, 4
        7. G. Knowledge 1–4

VNSG 1301 - Mental Health and Mental Illness

General

Course Key
15234

Course Rubric
VNSG

Course Number
1301

Course Title
Mental Health and Mental Illness

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) An overview of personality development, human needs, common mental mechanisms, and factors influencing mental health and mental illness. Includes common mental disorders and related therapy and application of clinical judgement. Required Prerequisite: VNSG-1304, VNSG-1323, VNSG-1360, VNSG-1116, and PSYC-2301 Recommended Co-Requisite: VNSG-1432, VNSG-1234, VNSG-1219, and VNSG-1462

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1304 VNSG-1323 VNSG-1360 VNSG-1116 PSYC-2301
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1432 VNSG-1234 VNSG-1219 VNSG-1462;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1304, VNSG 1323, VNSG 1360, VNSG 1116, and PSYC 2301
Recommended Corequisite(s): VNSG 1432, VNSG 1234, VNSG 1219, and VNSG 1462

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the characteristics of mental health; identify common mental illness and maladaptive behaviors; describe trends in psychotherapeutic treatment; discuss the application of therapeutic communication skills; and assist in the formulation of a plan of care for the individual with mental illness or maladaptive behavior using clinical judgement.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Identify the roles and responsibilities of the practical nurse in caring for clients with alterations in their mental health/wellness.
2. Explain the concepts of psychiatric mental health nursing (1a, 1b, 2a, 2c).
3. Explain the nurse/patient relationship and describe techniques that enhance communication and techniques that obstruct communication (1a, 1b, 2a, 2c).
4. Demonstrate knowledge of psychopharmacologic agents and mental illness (1a, 1b, 2a, 2c).
5. Explain mental health disorders as they relate to children and adolescents (1a, 1b, 2a, 2c).
6. Comprehend nursing care for the patient with anger and aggression problems and explain the impact and implications of crisis in a patient, family, or community (1a, 1b, 2a, 2c).
7. Identify self-destructive (suicidal) behavior and assess for risk factors (1a, 1b, 2a, 2c).
8. Examine nursing attitudes toward sexual abuse and family violence and explore family and domestic violence and its impact on society (1a, 1b, 2a, 2c).
9. Define types of anxiety disorders and associated symptoms, as well as adaptive and maladaptive behaviors (1a, 1b, 2a, 2c).
10. Describe the types and identify symptoms of depressive disorders (1a, 1b, 2a, 2c).
11. Explain bipolar disorders (1a, 1b, 2a, 2c).
12. Understand substance and addictive-related disorders and define abuse, dependency, intoxication, withdrawal, and tolerance (1a, 1b, 2a, 2c).
13. Differentiate mood disorders, psychotic disorders, and personality disorders (1a, 1b, 2a, 2c).
14. Comprehend somatic and eating disorders (1a, 1b, 2a, 2c).
15. Explain the impact and implications of neurocognitive dysfunction to the individual, family, and community across the life span (1a, 1b, 2a, 2c).
16. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 1–4
        4. D. Knowledge 1–4
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–12
        3. C. Knowledge 1–8
        4. D. Knowledge 1–5
        5. E. Knowledge 1–13
        6. F. Knowledge 1–3
        7. G. Knowledge 1–3
        8. H. Knowledge 1–7
    c. Patient Safety Advocate:
        1. A. Knowledge 1–5
        2. B. Knowledge 1–4
        3. C. Knowledge 1–2
        4. E. Knowledge 1–2
    d. Member of the Health Care Team:
        1. A. Knowledge 1–5
        2. B. Knowledge 1–4
        3. C. Knowledge 1–8
        4. D. Knowledge 1
        5. E. Knowledge 2–3

VNSG 1304 - Foundations of Nursing

General

Course Key
15235

Course Rubric	Course Number	Course Title
VNSG	1304	Foundations of Nursing

Semester Credit Hours	Lecture Hours	Lab Hours
3	2	3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) Introduction to the nursing profession including history, standards of practice, legal and ethical issues, and role of the vocational nurse. Topics include mental health, therapeutic communication, cultural and spiritual diversity, patient preference, nursing process using clinical judgement model, and holistic awareness. Required Prerequisite: BIOL-2401 Recommended Prerequisite: PSYC-2301 Recommended Co-Requisite: VNSG-1323, VNSG-1360, VNSG-1116

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE BIOL-2401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1323 VNSG-1360 VNSG-1116;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401
Recommended Prerequisite(s): PSYC 2301
Recommended Corequisite(s): VNSG 1323, VNSG 1360, VNSG 1116

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify roles and legal, ethical, and professional responsibilities of a vocational nurse as a member of the health care team in a variety of health care settings; identify characteristics of a therapeutic nurse/patient relationship; examine positive nurse/patient mental health practices emphasizing cultural and spiritual diversity, and patient preference; relate the history of nursing to the present day; and describe the components of the nursing process using clinical judgement model.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Describe the purpose, role, and responsibilities of practical and vocational nursing (1a, 1b, 2a, 2b, 2c).
2. Discuss the legal and ethical aspects of nursing (1a, 1b, 2a, 2b, 2c).
3. Discuss the purpose of documentation and reporting (1a, 1b, 2b, 2c).
4. Explain the communication process (1a, 1b, 2a, 2b, 2c).
5. Use critical thinking in a systematic, problem-solving process (1a, 1b, 2a, 2b, 2c).
6. Explain the nursing process and its use in nursing practice (1a, 1b, 2a, 2b, 2c).
7. Explain cultural, religious, and spiritual influences in patient care (1a, 1b, 2a, 2b, 2c).
8. Explain infection prevention and control measures (1a, 1b, 2a, 2b, 2c).
9. Demonstrate personal accountability and responsibility for providing safe care (1a, 1b, 2a, 2b, 2c).
10. Explain pain management and rest/sleep needs (1a, 1b, 2a, 2b, 2c).
11. Explain the role of nurse in maintaining fluid/electrolytes and acid/base balance (1a, 1b, 2a, 2b, 2c).
12. Explain the role of nursing care during the grieving and dying processes (1a, 1b, 2a, 2b, 2c).
13. Analyze health promotion and disease prevention in the older adult patient (1a, 1b, 2a, 2b, 2c).
14. Practice activities that promote the development and practice of professional nursing (1a, 1b, 2a, 2b, 2c, 2d, 2e).
15. Incorporate clinical reasoning and knowledge based on associate nursing program of study and evidence-based practice outcomes as a basis for decision making in nursing practice (1a, 1b, 2a, 2b, 2c, 2d, 2e).
16. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 1–5
        4. D. Knowledge 1–4
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–12
        3. C. Knowledge 1–8
        4. D. Knowledge 1–5
        5. E. Knowledge 1–13
        6. F. Knowledge 1–3
        7. G. Knowledge 1–3
        8. H. Knowledge 1–7
    c. Patient Safety Advocate:
        1. A. Knowledge 1–6
        2. B. Knowledge 1–4
        3. C. Knowledge 1–2
        4. D. Knowledge 1
        5. E. Knowledge 1–2
        6. F. Knowledge 1–2
    d. Member of the Health Care Team:
        1. A. Knowledge 1–5
        2. B. Knowledge 1–4
        3. C. Knowledge 1–8
        4. D. Knowledge 1–4
        5. E. Knowledge 1–3
        6. F. Knowledge 1–4

VNSG 1323 - Basic Nursing Skills

General

Course Key
15236

Course Rubric	Course Number	Course Title
VNSG	1323	Basic Nursing Skills

Semester Credit Hours	Lecture Hours	Lab Hours
3	1	7

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-1-7) Mastery of basic nursing skills and competencies for a variety of health care settings using the nursing process and clinical judgement model as the foundation for all nursing interventions. Required Prerequisite: BIOL-2401 Recommended Prerequisite: PSYC-2301 Recommended Co-Requisite: VNSG-1304, VNSG-1360 VNSG-1116

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE BIOL-2401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1304 VNSG-1360 VNSG-1116;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401
Recommended Prerequisite(s): PSYC 2301
Recommended Corequisite(s): VNSG 1304, VNSG 1360 VNSG 1116

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate safe and competent basic nursing skills; describe how each step of the nursing process and clinical judgement model relates to nursing care; and discuss the implementation of basic nursing skills in a variety of health care settings.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Demonstrate competency in theory of basic nursing skills (1a, 1b, 1c, 2a, 2b, 2c).
2. Demonstrate 100% competency in the following basic nursing skills:
    a. performing hand hygiene (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. preparing for isolation (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    c. performing surgical hand hygiene with preparing a sterile field (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    d. performing the physical assessment (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. collecting the specimen (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    f. performing diagnostic tests (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    g. measuring intake and output (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. surgical wound care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    i. administering medications (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    j. caring patients with alterations in health:
        1. oxygen administration (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
        2. tracheostomy care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
        3. catheterization and its care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
        4. insertion of NG tube and its care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
        5. performing colostomy, ileostomy, and urostomy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    k. administering nasogastric tube feeding (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    l. performing venipuncture and initiating IV therapy (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
3. Discuss the delivery of basic nursing skills in a variety of health care settings (1a, 1b, 1c, 2a, 2b, 2c).
4. Demonstrate self-directed behaviors for client safety in a simulated nursing environment (1a, 1b, 1c, 2a, 2b, 2c).
5. Demonstrate professional behavior by showing respect for others in a simulated nursing environment (1a, 1b, 1c, 2a, 2b, 2c).
6. Identify caring behaviors while delivering simulated nursing care (1a, 1b, 1c, 2a, 2b, 2c).
7. Identify the nursing role in patient/family education in a simulated nursing environment (1a, 1b, 1c, 2a, 2b, 2c).
8. Apply clinical reasoning skills in problem solving and decision making, when providing care in a simulated nursing environment (1a, 1b, 1c, 2a, 2b, 2c).
9. Implement beginning communication skills while delivering simulated nursing care (1a, 1b, 1c, 2a, 2b, 2c).
10. Demonstrate the ability to collaborate with other members of the healthcare team, while delivering simulated nursing care (1a, 1b, 1c, 2a, 2b, 2c).
11. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–4
        3. C. Knowledge 3
        4. D. Knowledge 1–3
    b. Provider of Patient-Centered Care:
        1. B. Knowledge 1–4
        2. C. Knowledge 1–2
        3. D. Knowledge 1–2
        4. E. Knowledge 1–2
        5. F. Knowledge 1–3
    c. Patient Safety Advocate:
        1. B. Knowledge 1–3
    d. Member of the Health Care Team:
        1. D. Knowledge 1–2
        2. E. Knowledge 1–3

VNSG 1331 - Pharmacology

General

Course Key
15237

Course Rubric
VNSG

Course Number
1331

Course Title
Pharmacology

Semester Credit Hours
3

Lecture Hours
3

Lab Hours
0

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-3-0) Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process and clinical judgement model. Required Prerequisite: VNSG-1304, VNSG-1323, VNSG-1116, PSYC-2301 Recommended Co-Requisite: VNSG-1461, VNSG-1429, VNSG-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1304 VNSG-1323 VNSG-1360 VNSG-1116 PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1461 VNSG-1429 VNSG-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1304, VNSG 1323, VNSG 1116, PSYC 2301
Recommended Corequisite(s): VNSG 1461, VNSG 1429, VNSG 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify properties, effects, and principles of pharmacotherapeutic agents; and explain nursing interventions associated with the various pharmacotherapeutic agents.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Use terminology associated with pharmacology (1a, 1b, 1c, 2a, 2c).
2. Use appropriate sources of drug information to research prescribed medication (1a, 1b, 1c, 2a, 2c).
3. Apply the six rights of medication administration during the preparation, administration, and documentation of medication therapy (1a, 1b, 1c, 2a, 2c).
4. Develop a drug profile for each prototype as assigned:
    a. drug action (1a, 1b, 1c, 2a, 2c);
    b. adverse reactions (1a, 1b, 1c, 2a, 2c);
    c. drug dosage forms (1a, 1b, 1c, 2a, 2c);
    d. recommended dosages and routes of administration (1a, 1b, 1c, 2a, 2c);
    e. nursing intervention appropriate to alleviate or prevent drug adverse reaction (1a, 1b, 1c, 2a, 2c).
5. Use basic knowledge to complete the nursing responsibilities needed to deliver safe patient care while meeting the pharmacological needs of the patient (1a, 1b, 1c, 2a, 2c).
6. Use knowledge base to monitor the patient's response to drug therapy and collaborate with members of the health care team whenever needed to clarify orders, and report the individual's response to medication prescribed (1a, 1b, 1c, 2a, 2c).
7. Identify classifications of medications (1a, 1b, 1c, 2a, 2c).
8. Identify commonly prescribed medications and related information in each classification (1a, 1b, 1c, 2a, 2c).
9. Relate possible drug interactions for specific drugs (1a, 1b, 1c, 2a, 2c).
10. Evaluate the patient for possible adverse drug reactions (1a, 1b, 1c, 2a, 2c).
11. Demonstrate health teaching related to drug therapy (1a, 1b, 1c, 2a, 2b, 2c).
12. Demonstrate critical thinking and problem solving ability (1a, 1b, 1c, 2a, 2c).
13. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 3
        4. D. Knowledge 1–3
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–12
        3. C. Knowledge 1–8
        4. D. Knowledge 1–5
        5. E. Knowledge 1–13
        6. F. Knowledge 1–3
        7. G. Knowledge 1–3
    c. Patient Safety Advocate:
        1. A. Knowledge 1–5
        2. B. Knowledge 2–4
        3. C. Knowledge 1–2
    d. Member of the Health Care Team:
        1. A. Knowledge 1, 4, 5
        2. B. Knowledge 1–3
        3. C. Knowledge 3–4, 6–8
        4. D. Knowledge 1
        5. E. Knowledge 2–3

VNSG 1360 - Clinical-Licenses Practical/Voc Nurse

General

Course Key
12403

Course Rubric	Course Number	Course Title
VNSG	1360	Clinical - Licensed Practical/Vocational Nurse Training

Semester Credit Hours	Lecture Hours	Lab Hours
3	0	12

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-0-12) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Required Prerequisite: BIOL-2401 Recommended Prerequisite: PSYC-2301 Recommended Co-Requisite: VNSG-1323, VNSG-1304, VNSG-1116

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE BIOL-2401;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1323 VNSG-1304 VNSG-1116;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): BIOL 2401
Recommended Prerequisite(s): PSYC 2301
Recommended Corequisite(s): VNSG 1323, VNSG 1304, VNSG 1116

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Caring Approach: Demonstrate caring behaviors toward self and others by
    a. demonstrating caring behaviors in nursing process development and implementation (1a, 1b, 1c, 2b);
    b. providing culturally sensitive health care to patients and their families (1a, 1b, 1c, 2b);
    c. providing safe, compassionate, comprehensive nursing care to patients and their families (1a, 1b, 1c, 2b);
    d. assisting the client to achieve optimum comfort and functioning (1a, 1b, 1c, 2b);
    e. interacting with patients and others to build respect and trust (1a, 1b, 1c, 2b);
2. Communication: Implement beginning communication skills with patients, families, and members of the interdisciplinary health care team by
    a. applying strategies of coordination, collaboration, and communication to plan, deliver, and evaluate interdisciplinary health care (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. demonstrating verbal and nonverbal communication skills that are relevant, accurate, clear, complete, timely, understandable, and therapeutic (1a, 1b, 1c, 2b, 2c);
    c. demonstrating written communication skills that are legible, relevant, accurate, complete, and meaningful (1a, 1b, 2c, 2d, 2e);
    d. demonstrating active listening, genuineness, observational skills, physical attentiveness, and interviewing skills (1a, 1b, 1c, 2b);
    e. maintaining eye contact (when culturally appropriate) (1a, 1b, 1c, 2b);
3. Collaboration: Demonstrate the ability to collaborate with other members of the health care team, while delivering basic nursing care by
    a. identifying members of interdisciplinary team (1a, 1b, 1c, 2b);
    b. functioning as a member of an interdisciplinary team (1a, 1b, 1c, 2b);
    c. collaborating with the interdisciplinary health care team to implement quality patient care (1a, 1b, 1c, 2b, 2c);
    d. identifying appropriate community agencies and health care resources to provide continuity of care (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    e. following chain of command (1a, 1b, 1c, 2a, 2b, 2d);
4. Clinical Reasoning: Apply clinical reasoning skills in problem solving and decision making when providing basic nursing care by
    a. applying clinical reasoning and nursing science as a basis for decision making in nursing practice (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. applying the systematic problem-solving process to assist in determination of predictable health care needs of patient:
        1. prioritize and implement components of the nursing process utilizing a holistic approach (1a, 1b, 1c, 2a, 2b, 2c, 2d);
        2. evaluate the achievement of patient outcomes (1a, 1b, 1c, 2a, 2b, 2c, 2d);
        3. assist in modifying the plan of care as needed (1a, 1b, 1c, 2a, 2b, 2c, 2d);
5. Professionalism: Demonstrate the attitudes and values of the nursing profession by
    a. demonstrating responsibility and accountability for the quality of nursing care provided to patients and their families (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. complying with policies and procedures of Tarrant County College, the Nursing Department, the course, and the clinical facility (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. complying with the professional, ethical, and legal standards of nursing (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. demonstrating evidence-based clinical practice (1a, 1b, 1c, 2b, 2c, 2e);
    e. maintaining patient confidentiality and professional boundaries (1a, 1b, 1c, 2b);
    f. interacting with patients, nursing faculty, and health care team in a professional manner (1a, 1b, 1c, 2b);
    g. selecting learning experiences that enhance competence (1a, 1b, 1c, 2b);
    h. organizing and completing assigned tasks in an appropriate time (1a, 1b, 1c, 2a, 2c, 2d);
6. Teaching: Identify teaching/learning principles to meet the basic needs of patients by
    a. assisting in identifying learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration (1a, 1b, 1c, 2b);
    b. collaborating with patient and interdisciplinary health care team to provide individual teaching plans based upon patient/family learning style and needs (1a, 1b, 1c, 2a, 2b, 2d);
    c. assisting in implementing individualized patient and family teaching (1a, 1b, 1c, 2a, 2b, 2d);
    d. identifying appropriate teaching methods (1a, 1b, 2a, 2c, 2d, 2e);
    e. documenting teaching interventions, patient, and family response (1a, 1b, 2a, 2c, 2d, 2e);
7. Safety: Demonstrate knowledge and self-directed behaviors for client safety by
    a. implementing measures to promote a safe environment for patients and others to identify patients accurately and correctly perform nursing procedures and skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. implementing and maintaining measures to prevent exposure to infectious pathogens and communicable conditions (1a, 1b, 2a, 2b, 2c, 2d);
    c. maintaining and monitoring for the chemical safety of the patient (1a, 1b, 2a, 2c, 2d);
    d. maintaining and monitoring for the thermal safety of the patient (1a, 1b, 2a, 2b, 2e);
    e. assuring the psychological safety of the patient by using stress control methods and therapeutic communication (1a, 1b, 1c, 2b);
    f. advocating for patient/family (1a, 1b, 1c, 2a, 2b, 2c);
8. Demonstrate an understanding of the following DE's:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 1–5
        4. D. Knowledge 1–4
        5. A. Clinical Behaviors/Judgements 1–3
        6. B. Clinical Behaviors/Judgements 2–9
        7. C. Clinical Behaviors/Judgements 1–6
        8. D. Clinical Behaviors/Judgements 1–5
    b. Provider of Patient-Centered Care:

1. A. Knowledge 1–4
2. B. Knowledge 1–12
3. C. Knowledge 1–8
4. D. Knowledge 1–5
5. E. Knowledge 1–13
6. F. Knowledge 1–3
7. G. Knowledge 1–3
8. H. Knowledge 1–7
9. A. Clinical Behaviors/Judgements 1–4
10. B. Clinical Behaviors/Judgements 1–9
11. C. Clinical Behaviors/Judgements 1–7
12. D. Clinical Behaviors/Judgements 1–3
13. E. Clinical Behaviors/Judgements 1–13
14. F. Clinical Behaviors/Judgements 1–6
15. G. Clinical Behaviors/Judgements 1–7
16. H. Clinical Behaviors/Judgements 1–4

c. Patient Safety Advocate:

1. A. Knowledge 1–6
2. B. Knowledge 1–4
3. C. Knowledge 1–2
4. D. Knowledge 1
5. E. Knowledge 1–2
6. F. Knowledge 1–2
7. A. Clinical Behaviors/Judgements 3–6
8. B. Clinical Behaviors/Judgements 1–9
9. C. Clinical Behaviors/Judgements 1–3
10. D. Clinical Behaviors/Judgements 1–3
11. E. Clinical Behaviors/Judgements 1–4
12. F. Clinical Behaviors/Judgements 1–3

d. Member of the Health Care Team:

1. A. Knowledge 1–5
2. B. Knowledge 1–4
3. C. Knowledge 1–8
4. D. Knowledge 1–4
5. E. Knowledge 1–3
6. F. Knowledge 1–4
7. G. Knowledge 1–4
8. A. Clinical Behaviors/Judgements 1–3
9. B. Clinical Behaviors/Judgements 1–5
10. C. Clinical Behaviors/Judgements 1–4
11. D. Clinical Behaviors/Judgements 1–7
12. E. Clinical Behaviors/Judgements 1–4
13. F. Clinical Behaviors/Judgements 1–3

VNSG 1429 - Medical-Surgical Nursing I

General

Course Key
15238

Course Rubric
VNSG

Course Number
1429

Course Title
Medical-Surgical Nursing I

Semester Credit Hours
4

Lecture Hours
4

Lab Hours
1

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-1) Application of the nursing process and clinical judgment model to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings. Required Prerequisite: VNSG-1304, VNSG-1323, VNSG-1360, VNSG-1116, PSYC-2301 Recommended Co-Requisite: VNSG-1331, VNSG-1461, VNSG-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1304 VNSG-1323 VNSG-1360 VNSG-1116 PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1331 VNSG-1461 VNSG-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1304, VNSG 1323, VNSG 1360, VNSG 1116, PSYC 2301
Recommended Corequisite(s): VNSG 1331, VNSG 1461, VNSG 1301

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify the components of the health-illness continuum; identify prevalent medical-surgical conditions affecting the adult; and utilize the nursing process and clinical judgment model to assist in developing a plan of care for selected medical-surgical conditions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the role of genetics in the etiology of selected medical-surgical disease processes by
    a. identifying disorders that are influenced by genetics (1a, 1b, 1c, 2a, 2c);
    b. planning care for patients with genetic disorders (1a, 1b, 1c, 2a, 2c);
2. Explain nursing management of the surgical patient (1a, 1b, 1c, 2a, 2c).
3. Explain nursing management of patients with selected medical-surgical disease processes related to integumentary system, musculoskeletal system, sensory system, endocrine system, gastrointestinal system, and urinary system by
    a. describing risk factors (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care including medical, pharmacological, nutritional, laboratory, radiology, and other specific services (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
    h. explaining complications (1a, 1b, 1c, 2a, 2c);
4. Explain nursing management in home-health nursing, long-term care, and rehabilitation nursing (1a, 1b, 1c, 2a, 2c).
5. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1–4
        2. B. Knowledge 1–8
        3. C. Knowledge 1–5
        4. D. Knowledge 1–4

b. Provider of Patient-Centered Care:

1. A. Knowledge 1–4
2. B. Knowledge 1–12
3. C. Knowledge 1–8
4. D. Knowledge 1–5
5. E. Knowledge 1–13
6. F. Knowledge 1–3
7. G. Knowledge 1–3
8. H. Knowledge 1–7

c. Patient Safety Advocate:

1. A. Knowledge 1–6
2. B. Knowledge 1–4
3. C. Knowledge 1–2
4. D. Knowledge 1
5. E. Knowledge 1–2
6. F. Knowledge 1–2

d. Member of the Health Care Team:

1. A. Knowledge 1–5
2. B. Knowledge 1–4
3. C. Knowledge 1–8
4. D. Knowledge 1–4
5. E. Knowledge 1–3
6. F. Knowledge 1–4
7. G. Knowledge 1–4

VNSG 1432 - Medical-Surgical Nursing II

General

Course Key
15239

Course Rubric	Course Number	Course Title
VNSG	1432	Medical-Surgical Nursing II

Semester Credit Hours	Lecture Hours	Lab Hours
4	4	1

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-4-1) Continuation of Medical-Surgical Nursing I with application of the nursing process and clinical judgment model to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings. Required Prerequisite: VNSG-1429, VNSG-1331, VNSG-1461, VNSG-1301 Recommended Co-Requisite: VNSG-1234, VNSG-1230, VNSG-1219, VNSG-1462

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1429 VNSG-1331 VNSG-1461 VNSG-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1234 VNSG-1230 VNSG-1219 VNSG-1462;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1429, VNSG 1331, VNSG 1461, VNSG 1301
Recommended Corequisite(s): VNSG 1234, VNSG 1230, VNSG 1219, VNSG 1462

Course Learning Outcomes

Course Learning Outcomes
End-Of-Course Outcomes:
Explain the components of the health-illness continuum; assess prevalent medical-surgical conditions affecting the adult client; and utilize the nursing process and clinical judgment model to assist in developing a plan of care for selected medical-surgical conditions.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Explain the role of genetics in the etiology of selected Medical-Surgical disease process by
    a. identifying disorders that are influenced by genetics (1a, 1b, 1c, 2a, 2c);
    b. planning care for patients with genetic disorders (1a, 1b, 1c, 2a, 2c).
2. Explain nursing management of patients with selected medical-surgical disease processes related to cardiovascular system, respiratory system, gallbladder, liver, biliary tract disorder, exocrine pancreatic system, neurological system, and reproductive system by
    a. describing risk factors (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care including medical, pharmacological, nutritional, laboratory, radiology, and other specific services (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);
    g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);
    h. explaining complications (1a, 1b, 1c, 2a, 2c).
3. Explain nursing management of patients with cancer, blood disorders, lymphatic disorders, HIV/AIDS, and immune disorders by
    a. describing risk factors (1a, 1b, 1c, 2a, 2c);
    b. describing pathophysiology (1a, 1b, 1c, 2a, 2c);
    c. relating clinical manifestations to pathophysiology (1a, 1b, 1c, 2a, 2c);
    d. explaining collaborative care including medical, pharmacological, nutritional, laboratory, radiology, and other specific services (1a, 1b, 1c, 2a, 2c);
    e. explaining nursing care (1a, 1b, 1c, 2a, 2c);
    f. identifying nursing diagnoses (1a, 1b, 1c, 2a, 2c);

g. identifying nursing interventions (1a, 1b, 1c, 2a, 2c);

h. explaining complications (1a, 1b, 1c, 2a, 2c).

4. Explain nursing management of patients experiencing urgent alternations in health (1a, 1b, 1c, 2a, 2c).
5. Explain nursing management in hospice care (1a, 1b, 1c, 2a, 2c).
6. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1-4
        2. B. Knowledge 1-8
        3. C. Knowledge 1-5
        4. D. Knowledge 1-4
    b. Provider of Patient-Centered Care:
        1. A. Knowledge 1-4
        2. B. Knowledge 1-12
        3. C. Knowledge 1-8
        4. D. Knowledge 1-5
        5. E. Knowledge 1-13
        6. F. Knowledge 1-3
        7. G. Knowledge 1-3
        8. H. Knowledge 1-7
    c. Patient Safety Advocate:
        1. A. Knowledge 1-6
        2. B. Knowledge 1-4
        3. C. Knowledge 1-2
        4. D. Knowledge 1
        5. E. Knowledge 1-2
        6. F. Knowledge 1-2
    d. Member of the Health Care Team:
        1. A. Knowledge 1-5
        2. B. Knowledge 1-4
        3. C. Knowledge 1-8
        4. D. Knowledge 1-4
        5. E. Knowledge 1-3
        6. F. Knowledge 1-4
        7. G. Knowledge 1-4

VNSG 1461 - Clinical-Licensed Practical/Vocational

General

Course Key
12408

Course Rubric	Course Number	Course Title
VNSG	1461	Clinical-Licensed Practical/Vocational Nurse Training

Semester Credit Hours	Lecture Hours	Lab Hours
4	0	16

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-16) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Required Prerequisite: VNSG-1304,VNSG-1323, VNSG-1360, VNSG-1116, PSYC-2301 Recommended Co-Requisite: VNSG-1331, VNSG-1429, VNSG-1301

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1304 VNSG-1323 VNSG-1116 PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1304 VNSG-1323 VNSG-1360 VNSG-1116 PSYC-2301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1304,VNSG 1323, VNSG 1360, VNSG 1116, PSYC 2301
Recommended Corequisite(s): VNSG 1331, VNSG 1429, VNSG 1301

Course Learning Outcomes

Course Learning Outcomes
End-Of-Course Outcomes:
As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Caring Approach: Demonstrate caring behaviors toward self and others by
    a. demonstrating acceptance and consideration of the physical, emotional, social, spiritual, and cultural needs of the patient and others to achieve desired patient outcomes (1a, 1b, 1c, 2b);
    b. interacting with patients and others to build respect and trust (1a, 1b, 1c, 2b);
    c. demonstrating caring behaviors using comfort, compassion, concern, empathy, nurturing, touch, and support in assisting patient in coping process (1a, 1b, 1c, 2b);
    d. assisting the patient to achieve optimum comfort and functioning (1a, 1b, 1c, 2b).
2. Communication: Apply principles of communication when interacting with patients, families, and members of the interdisciplinary health care team by
    a. demonstrating verbal and nonverbal communication skills that are relevant, accurate, complete, timely, clear, understandable, and therapeutic (1a, 1b, 1c, 2b, 2c);
    b. demonstrating written communication skills that are relevant, accurate, complete, timely, legible, and meaningful (1a, 1b, 2c, 2d, 2e);
    c. demonstrating active listening, genuineness, observation skills, physical attentiveness, and interviewing skills (1a, 1b, 1c, 2b);
    d. recognizing and maintaining professional boundaries of the nurse/patient relationship (1a, 1b, 1c, 2b);
    e. reporting and documenting accurately and completely patient status, nursing care provided, administration of medications and treatments, patient responses, and contact with health care team members concerning significant events (1a, 1b, 2b, 2c, 2d, 2e);
    f. demonstrating spontaneous, non-defensive behaviors (1a, 1b, 1c, 2b).
3. Collaboration: Collaborate with interdisciplinary teams to coordinate care of adult patients with common health needs by
    a. describing the roles of interdisciplinary team members (1a, 1b, 1c, 2b);
    b. functioning as a member of an interdisciplinary team (1a, 1b, 1c, 2b);

c. collaborating with the patient, health care team, and patient's family to coordinate care (1a, 1b, 1c, 2b);

d. collaborating with interdisciplinary teams to make referrals to appropriate community agencies and health care resources to provide continuity of care (1a, 1b, 1c, 2b, 2c);

e. following chain of command (1a, 1b, 1c, 2a, 2b, 2d).

4. Clinical Reasoning: Demonstrate clinical reasoning skills when providing care for the adult with common health needs by

a. applying clinical reasoning and nursing science as a basis for decision making in nursing practice (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

b. applying the systematic, problem-solving process to assist in determination of predictable health care needs of patient by prioritizing and implementing components of the nursing process utilizing a holistic approach, evaluating the achievement of patient outcomes, and assisting or modifying the plan of care as needed (1a, 1b, 1c, 2a, 2b, 2c, 2d).

5. Professionalism: Demonstrate the attitudes and values of the nursing profession by

a. demonstrating responsibility and accountability for the quality of nursing care provided to patients and their families (1a, 1b, 1c, 2a, 2b, 2c, 2d);

b. complying with policies and procedures of Tarrant County College, the Nursing Department, the course, and the clinical facility (1a, 1b, 1c, 2a, 2b, 2c, 2e);

c. complying with the professional, ethical, and legal standards of nursing (1a, 1b, 1c, 2a, 2b, 2c, 2d);

d. demonstrating evidence-based clinical practice (1a, 1b, 1c, 2b, 2c, 2e);

e. maintaining patient confidentiality and professional boundaries (1a, 1b, 1c, 2b);

f. interacting with patients, nursing faculty, and health care team in a professional manner (1a, 1b, 1c, 2a, 2b);

g. selecting learning experiences that enhance competence (1a, 1b, 1c, 2);

h. organizing and completing assigned tasks in an appropriate time (1a, 1b, 1c, 2a, 2c, 2d).

6. Teaching: Apply teaching/learning principles to meet the needs of adult patients and families by

a. assisting in identifying learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration (1a, 1b, 1c, 2b);

b. collaborating with patient and interdisciplinary health care team to provide individual teaching plans based upon patient/family learning style and needs (1a, 1b, 1c, 2a, 2b, 2d);

c. assisting in implementing individualized patient and family teaching (1a, 1b, 1c, 2a, 2b, 2d);

d. actively seeking opportunities to teach patients and families (1a, 1b, 1c, 2b);

e. identifying appropriate teaching methods (1a, 1b, 2a, 2c, 2d, 2e);

f. documenting teaching interventions, patient, and family response (1a, 1b, 2a, 2c, 2d, 2e).

7. Safety: Demonstrate safe practice in the provision of care to patients and families by

a. implementing measures to promote a safe environment for patients and others to identify patients accurately and correctly perform nursing procedures and skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);

b. implementing and maintaining measures to prevent exposure to infectious pathogens and communicable conditions (1a, 1b, 2a, 2b, 2c, 2d);

c. maintaining and monitoring for the chemical safety of the patient (1a, 1b, 2a, 2c, 2d);

d. maintaining and monitoring for the thermal safety of the patient (1a, 1b, 2a, 2b, 2e);

e. assuring the psychological safety of the patient by using stress control methods and therapeutic communication (1a, 1b, 1c, 2b);

f. advocating for patient/family (1a, 1b, 1c, 2a, 2b, 2c);

g. recognizing inaccurate or contraindicated orders (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).

8. Demonstrate an understanding of the following DECs:

End-Of-Course Outcomes:
As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

8. Demonstrate an understanding of the following DECs:

a. Member of a Profession:

1. A. Knowledge 1-4
2. B. Knowledge 1-8
3. C. Knowledge 1-5
4. D. Knowledge 1-4
5. A. Clinical Behaviors/Judgements 1-3
6. B. Clinical Behaviors/Judgements 2-9
7. C. Clinical Behaviors/Judgements 1-6
8. D. Clinical Behaviors/Judgements 1-5

b. Provider of Patient-Centered Care:

1. A. Knowledge 1-4
2. B. Knowledge 1-12
3. C. Knowledge 1-8
4. D. Knowledge 1-5
5. E. Knowledge 1-13
6. F. Knowledge 1-3
7. G. Knowledge 1-3
8. H. Knowledge 1-7
9. A. Clinical Behaviors/Judgements 1-4
10. B. Clinical Behaviors/Judgements 1-9
11. C. Clinical Behaviors/Judgements 1-7
12. D. Clinical Behaviors/Judgements 1-3
13. E. Clinical Behaviors/Judgements 1-13
14. F. Clinical Behaviors/Judgements 1-6
15. G. Clinical Behaviors/Judgements 1-7
16. H. Clinical Behaviors/Judgements 1-4

c. Patient Safety Advocate:

1. A. Knowledge 1-6
2. B. Knowledge 1-4
3. C. Knowledge 1-2
4. D. Knowledge 1
5. E. Knowledge 1-2
6. F. Knowledge 1-2
7. A. Clinical Behaviors/Judgements 3-6
8. B. Clinical Behaviors/Judgements 1-9
9. C. Clinical Behaviors/Judgements 1-3
10. D. Clinical Behaviors/Judgements 1-3
11. E. Clinical Behaviors/Judgements 1-4
12. F. Clinical Behaviors/Judgements 1-3

d. Member of the Health Care Team:

1. A. Knowledge 1-5
2. B. Knowledge 1-4
3. C. Knowledge 1-8
4. D. Knowledge 1-4
5. E. Knowledge 1-3
6. F. Knowledge 1-4
7. G. Knowledge 1-4
8. A. Clinical Behaviors/Judgements 1-3
9. B. Clinical Behaviors/Judgements 1-5
10. C. Clinical Behaviors/Judgements 1-4
11. D. Clinical Behaviors/Judgements 1-7
12. E. Clinical Behaviors/Judgements 1-4
13. F. Clinical Behaviors/Judgements 1-3

VNSG 1462 - Clinical-Licensed Practical/Vocational

General

Course Key
12409

Course Rubric	Course Number	Course Title
VNSG	1462	Clinical-Licensed Practical/Vocational Nurse Training

Semester Credit Hours	Lecture Hours	Lab Hours
4	0	16

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-0-16) A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Required Prerequisite: VNSG-1429, VNSG-1331, VNSG-1461, VNSG-1301 Recommended Co-Requisite: VNSG-1432, VNSG-1234, VNSG-1230, VNSG-1219

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

#TAKE VNSG-1429 VNSG-1331 VNSG-1461 VNSG-1301;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description prerequisite/corequisite.
Type
Corequisite

10
A Requirement block where all subrequirements are required

 # TAKE VNSG-1432 VNSG-1234 VNSG-1230 VNSG-1219;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): VNSG 1429, VNSG 1331, VNSG 1461, VNSG 1301
Recommended Corequisite(s): VNSG 1432, VNSG 1234, VNSG 1230, VNSG 1219

Course Learning Outcomes

Course Learning Outcomes
End-Of-Course Outcomes:
As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Learning outcomes are linked to SCANS requirements. Specific SCANS requirements are linked to the class schedule.

Upon successful completion of this course, students will:

1. Caring Approach: Provide patient care that is respectful of and responsive to individual patient preferences, needs, and values by
    a. demonstrating acceptance and consideration of the physical, emotional, social, spiritual, and cultural needs of the patient and others to achieve desired patient outcomes (1a, 1b, 1c, 2b);
    b. interacting with patient and others to build respect and trust (1a, 1b, 1c, 2b);
    c. demonstrating caring behaviors using comfort, compassion, concern, empathy, nurturing, touch, and support in assisting patient in coping process (1a, 1b, 1c, 2b);
    d. assisting the patient to achieve optimum comfort and functioning (1a, 1b, 1c, 2b);
    e. promoting wellness behaviors in self and others (1a, 1b, 1c, 2b).
2. Communication: Initiate and facilitate effective communication with patients, families, and members of the interdisciplinary health care team by
    a. demonstrating verbal and nonverbal communication skills that are relevant, accurate, complete, timely, clear, understandable, and therapeutic (1a, 1b, 1c, 2b, 2c);
    b. demonstrating written communication skills that are relevant, accurate, complete, timely, legible, and meaningful (1a, 1b, 2c, 2d, 2e);
    c. demonstrating active listening, genuineness, observation skills, physical attentiveness, and interviewing skills (1a, 1b, 1c, 2b);
    d. recognizing and maintaining professional boundaries of the nurse/patient relationship (1a, 1b, 1c, 2b);
    e. reporting and documenting accurately and completely patient status, nursing care provided, administration of medications and treatments, patient responses, and contact with health care team members concerning significant events (1a, 1b, 2b, 2c, 2d, 2e);
    f. demonstrating spontaneous, non-defensive behaviors (1a, 1b, 1c, 2b);
    g. initiating and facilitating independently communication to meet the needs of patients and families (1a, 1b, 1c, 2b, 2c).
3. Collaboration: Collaborate with interdisciplinary teams to manage patients, families, and/or communities to achieve quality patient outcomes by
    a. describing the roles of interdisciplinary team members (1a, 1b, 1c, 2b);
    b. function as a member of an interdisciplinary team (1a, 1b, 1c, 2b);
    c. collaborating with the patient, health care team, and patient's family to coordinate care (1a, 1b, 1c, 2b);
    d. collaborating with interdisciplinary teams to make referrals to appropriate community agencies and health care resources to provide continuity of care (1a, 1b, 1c, 2b, 2c);
    e. following chain of command (1a, 1b, 1c, 2a, 2b, 2d);
    f. delegating tasks and collaborating to achieve positive patient outcomes (1a, 1b, 1c, 2b, 2c);
    g. interacting creatively and openly with others to solve problems to achieve patient goals and outcomes (1a, 1b, 1c, 2b, 2c).
4. Clinical Reasoning: Independently utilize clinical reasoning skills when providing care for patients with complex health needs by
    a. applying clinical reasoning and nursing science as a basis for decision making in nursing practice (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. demonstrating autonomy in collecting and analyzing physical, psychosocial, spiritual, cultural, occupational and environmental data in a variety of health care settings (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    c. applying the systematic, problem-solving process to assist in determination of predictable health care needs of patient to prioritize and implement components of the nursing process utilizing a holistic approach (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. evaluating the achievement of patient outcomes (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    e. recognizing social, political, and economic determinants of health status (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    f. assisting in modifying the plan of care as needed (1a, 1b, 1c, 2a, 2b, 2c, 2d).
5. Professionalism: Demonstrate the attitudes and values of the nursing profession by
    a. demonstrating responsibility and accountability for the quality of nursing care provided to patients and their families (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    b. complying with policies and procedures of Tarrant County College, the Nursing Department, the course, and the clinical facility (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    c. complying with the professional, ethical, and legal standards of nursing (1a, 1b, 1c, 2a, 2b, 2c, 2d);
    d. demonstrating evidence-based clinical practice (1a, 1b, 1c, 2b, 2c, 2e);
    e. maintaining patient confidentiality and professional boundaries (1a, 1b, 1c, 2b);
    f. interacting with patients, nursing faculty, and health care team in a professional manner (1a, 1b, 1c, 2a, 2b);
    g. selecting learning experiences that enhance competence (1a, 1b, 1c, 2);
    h. organizing and completing assigned tasks in an appropriate time (1a, 1b, 1c, 2a, 2c, 2d).
6. Teaching: Implement teaching/learning principles to meet the needs of patients and families with complex health needs by
    a. assisting in identifying learning needs of patients and families related to risk reduction and health promotion, maintenance, and restoration (1a, 1b, 1c, 2b);
    b. collaborating with patient and interdisciplinary health care team to provide individual teaching plans based upon patient/family learning style and needs (1a, 1b, 1c, 2a, 2b, 2d);
    c. independently implementing individualized patient and family teaching (1a, 1b, 1c, 2a, 2b, 2d);
    d. actively seeking opportunities to teach patients and families (1a, 1b, 1c, 2b);
    e. identifying appropriate teaching methods (1a, 1b, 2a, 2c, 2d, 2e);
    f. documenting teaching interventions, patient, and family response (1a, 1b, 2a, 2c, 2d, 2e).
7. Safety: Demonstrate the knowledge, skills, and attitudes that ensure a culture of safety in practice by
    a. implementing measures to promote a safe environment for patients and others to identify patients accurately and correctly perform nursing procedures and skills (1a, 1b, 1c, 2a, 2b, 2c, 2e);
    b. implementing and maintaining measures to prevent exposure to infectious pathogens and communicable conditions (1a, 1b, 2a, 2b, 2c, 2d);
    c. maintaining and monitoring for the chemical safety of the patient (1a, 1b, 2a, 2c, 2d);
    d. maintaining and monitoring for the thermal safety of the patient (1a, 1b, 2a, 2b, 2e);
    e. assuring the psychological safety of the patient by using stress control methods and therapeutic communication (1a, 1b, 1c, 2b);
    f. advocating for patient/family (1a, 1b, 1c, 2a, 2b, 2c);
    g. recognizing inaccurate or contraindicated orders (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Demonstrate an understanding of the following DECs:
    a. Member of a Profession:
        1. A. Knowledge 1-4
        2. B. Knowledge 1-8
        3. C. Knowledge 1-5
        4. D. Knowledge 1-4
        5. A. Clinical Behaviors/Judgements 1-3
        6. B. Clinical Behaviors/Judgements 2-9
        7. C. Clinical Behaviors/Judgements 1-6
        8. D. Clinical Behaviors/Judgements 1-5

b. Provider of Patient-Centered Care:
    1. A. Knowledge 1-4
    2. B. Knowledge 1-12
    3. C. Knowledge 1-8
    4. D. Knowledge 1-5
    5. E. Knowledge 1-13
    6. F. Knowledge 1-3
    7. G. Knowledge 1-3
    8. H. Knowledge 1-7
    9. A. Clinical Behaviors/Judgements 1-4
    10. B. Clinical Behaviors/Judgements 1-9
    11. C. Clinical Behaviors/Judgements 1-7
    12. D. Clinical Behaviors/Judgements 1-4
    13. E. Clinical Behaviors/Judgements 1-13
    14. F. Clinical Behaviors/Judgements 1-6
    15. G. Clinical Behaviors/Judgements 1-7
    16. H. Clinical Behaviors/Judgements 1-6

c. Patient Safety Advocate:
    1. A. Knowledge 1-6
    2. B. Knowledge 1-4
    3. C. Knowledge 1-2
    4. D. Knowledge 1
    5. E. Knowledge 1-2
    6. F. Knowledge 1-2
    7. A. Clinical Behaviors/Judgements 3-6
    8. B. Clinical Behaviors/Judgements 1-9
    9. C. Clinical Behaviors/Judgements 1-3
    10. D. Clinical Behaviors/Judgements 1-3
    11. E. Clinical Behaviors/Judgements 1-4
    12. F. Clinical Behaviors/Judgements 1-3

d. Member of the Health Care Team:
    1. A. Knowledge 1-5
    2. B. Knowledge 1-4
    3. C. Knowledge 1-8
    4. D. Knowledge 1-4
    5. E. Knowledge 1-3
    6. F. Knowledge 1-4
    7. G. Knowledge 1-4

e. A. Clinical Behaviors/Judgements 1-3

f. B. Clinical Behaviors/Judgements 1-5

g. C. Clinical Behaviors/Judgements 1-4

h. D. Clinical Behaviors/Judgements 1-7

i. E. Clinical Behaviors/Judgements 1-4

j. F. Clinical Behaviors/Judgements 1-3

k. G. Clinical Behaviors/Judgements 1-4

WIND 2459 - Wind Power Delivery System

General

Course Key
15120

Course Rubric
WIND

Course Number
2459

Course Title
Wind Power Delivery System

Semester Credit Hours
4

Lecture Hours
3

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-3-3). Components, equipment, and infrastructure used in the production and transmission of electricity as related to wind turbine power. Required Prerequisite: CETT-1409

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take CETT-1409
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): CETT 1409

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes:

Explain the operation of power production; describe power transmission components; identify the operational relationship between the generator and convertor; compare the authority of local area, state, and national jurisdiction as reacted to the electrical grid; and interpret grid schematics.

Upon successful completion of this course, students will:

1. Explain the operation of power production by
    a. explaining the process of measuring the wind speed (1a, 1b, 2a, 2b, 2c);
    b. describing the effects of atmospheric conditions (1a, 1b, 2a, 2b, 2c);
    c. explaining the components in choosing the proper site for a wind powered generator (1a, 1b, 2a, 2b, 2c).

2. Describe the different components in power transmission by
    a. listing the stages of power transmission (1a, 1b, 2a, 2b, 2c);
    b. listing the components used within each stage (1a, 1b, 2a, 2b, 2c);
    c. explaining the difficulties facing the power transmission industry (1a, 1b, 2a, 2b, 2c).

3. Explain the operational relationship between the generator and convertor by
    a. describing the methods of power generation by wind turbines (1a, 1b, 2a, 2b, 2c);
    b. contrasting the use of generator versus alternator in the wind turbine (1a, 1b, 2a, 2b, 2c);
    c. listing the components needed and their application in the process of power conversion (1a, 1b, 2a, 2b, 2c).

4. Discuss the need for agreements given by local, state, and national authorities by
    a. describing the application process to receive permission for the installation process (1a, 1b, 2a, 2b, 2c);
    b. listing the local and state contact persons and numbers (1a, 1b, 2a, 2b, 2c);
    c. explaining how the state and national authorities control the power grid (1a, 1b, 2a, 2b, 2c).

5. Demonstrate a knowledge of grid schematics by
    a. drawing a sample schematic for the user of a wind turbine (1a, 1b, 2a, 2b, 2c);
    b. explaining the use of national grid schematics (1a, 1b, 2a, 2b, 2c);
    c. interpreting the schematics being used to transfer power to large populated areas (1a, 1b, 2a, 2b, 2c);
    d. describing how the SMART Grid would benefit our society (1a, 1b, 2a, 2b, 2c).

WLDG 1312 - Intro to Flux Cored Arc Welding (FCAW)

General

Course Key
14931

Course Rubric
WLDG

Course Number
1312

Course Title
Introduction to Flux Cored Arc Welding (FCAW)

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) An overview of terminology, safety procedures, and equipment set-up. Practice in performing various joints using Flux Cored Arc Welding (FCAW) equipment.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate equipment safety checks; identify Flux Cored Arc Welding (FCAW) equipment parts, and demonstrate the procedures for welding various joints in various positions.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a);
    b. demonstrating operation of welding equipment safety (1a, 1b, 2a, 2d, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2a).
2. Choose correct filler electrode by
    a. identifying filler metal electrodes to AWS filler metal number system (1a, 1b, 2a, 2e);
    b. demonstrating selection of electrode size for 5 types of welded joints and metal thickness (1a, 1b, 2a, 2e).
3. Demonstrate the ability to set up and apply the theory of oxygen/acetylene cutting system by
    a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2e);
    b. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2e);
    c. explaining selection of cutting tips sizes (1a, 1b, 2a);
    d. demonstrating setup and manual cutting of straight and bevel edges (1a, 1b, 2a, 2d, 2e);
    e. making minor external repairs to mechanize OFC equipment and accessories (1a, 1b, 2a, 2d, 2e);
    f. demonstrating bevel cutting of pipe with pipe beveling machine (1a, 1b, 2a, 2d, 2e).
4. Demonstrate an understanding of proper setup of a FCAW welding station by
    a. performing safety inspection of FCAW equipment and accessories (1a, 2a, 2e);
    b. explaining CV welding voltage (1a, 1b, 2e);
    c. selecting correct wire speed for flux cored welding electrode (1a, 1b, 2a);
    d. demonstrating correct electrode stick out (1a, 1b, 2a, 2e).
5. Perform v-groove welded joints with the FCAW process by
    a. passing welder performance qualification test in the 1G position (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. passing welder qualification tests in the 2G, 3G, and 4G position on carbon steel plate (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate an understanding of types of preheat and post heat by
    a. identifying preheat (1a, 1b, 2e);
    b. identifying inter-pass temperature (1a, 1b, 2e);
    c. identifying post weld heat treatments (1a, 1b, 2e);
    d. identifying hold points (1a, 1b, 2e).

WLDG 1313 - Intro to Blueprint Reading for Welders

General

Course Key
14907

Course Rubric
WLDG

Course Number
1313

Course Title
Introduction to Blueprint Reading for Welders

Semester Credit Hours
3

Lecture Hours
2

Lab Hours
3

Course Classification
Workforce Education Course Manual (WECM)

Description
(3-2-3) A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-course outcomes: Define terms and abbreviations; interpret views, lines, dimensions, detail drawings and welding symbols; identify structural shapes; demonstrate the proper use of measuring devices; and calculate dimensions.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of pictorial and orthographic projections by:
    a. Identifying the difference between pictorial and orthographic projections (1a,1b);
    b. Identifying the basic views in an orthographic projection (1a, 1b);
    c. Identifying isometric and oblique drawings (1a, 1b).
2. Recall and demonstrate an understanding of the usages of different types of lines used on prints by:
    a. Listing and identifying the types of lines used on prints (1a, 1b);
    b. Describing the proper usage of each type of line (1a, 1b);
    c. Sketching different types of views using correct line applications (1a, 1b).
3. Demonstrate measurement skills by:
    a. Identifying the difference between US Standard and metric measuring system (1a, 1b);
    b. Converting between US Standard measurements and metric units (1a, 1b);
    c. Converting between decimal fractions and common fractions (1a, 1b);
    d. Demonstrating the reading of a tape measure (1a, 1b);
    e. Identifying the different types of measurements and dimensioning used on prints (1a, 1b);
4. Demonstrate an understanding of common structural shapes used in steel construction by:
    a. Identifying different types of structural shapes (1a, 1b);
    b. Naming the parts of each structural shape (1a, 1b);
    c. Listing the advantages and disadvantages of each type of structural shape (1a, 1b, 2c);
    d. Identifying the bill of material designation of each type of structural shape (1a, 1b);
5. Demonstrate an understanding of types of welds and joints by:
    a. Identifying the five types of welding joints (1a, 1b);
    b. Explaining the application of fillet welds, groove welds, plug welds, slot welds and resistant welds (1a, 1b, 2c, 2e);
6. Demonstrate the ability to interpret welding symbols used on construction prints by:
    a. Drawing and labeling commonly used weld symbols (1a, 1b);
    b. Identifying all numerical and graphic labeling associated with welding symbols (1a, 1b);
7. Demonstrate an understanding of the importance of information on various parts of a print by:
    a. Explaining the usage of various views (1a, 1b, 2c);
    b. Identifying and explaining information in the 'bill of material' (1a, 1b, 2c);
    c. Identifying and explaining information in 'title block' (1a, 1b, 2c);
    d. Describing the importance of the 'notes' (1a, 1b, 2c);
8. Demonstrate an understanding of the relevance of various organizations, standards, and codes by:
    a. Describing the role of AWS (1a, 1b, 2a, 2c, 2d);
    b. Describing the role of ASME (1a, 1b, 2a, 2c, 2d);
    c. Describing the role of API (1a, 1b, 2a, 2c, 2d);
    d. Describing the role of AISC (1a, 1b, 2a, 2c, 2d);
    e. Describing the role of ISO (1a, 1b, 2a, 2c, 2d);

f. Describing the role of OSHA (1a, 1b, 2a, 2c, 2d);

WLDG 1417 - Introduction to Layout and Fabrication

General

Course Key
14929

Course Rubric
WLDG

Course Number
1417

Course Title
Introduction to Layout and Fabrication

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction. Required Prerequisite(s): WLDG 1313 Required Pre-requisite/Co-requisite: WLDG-1428 or WLDG-1430

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for pre-requisite/co-requisite.
Type
Prerequisite/corequisite

10
A Requirement block where all subrequirements are required

#Take WLDG-1428 or WLDG-1430;
A Subrequirement block where all groups are required

31
(SELECTED CRSES): Take 3 of the following courses...

See course description for prerequisites/corequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take WLDG-1313;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): WLDG 1313
Required Prerequisite(s) or Corequisite(s): WLDG 1428 or WLDG 1430

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Interpret welding symbols; utilize measuring instruments and tools for fabricating projects; define layout and fabrication terminology; and identify structural shapes and materials.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding lab by
    a. describing burns caused by the welding and cutting flames (1a, 1b, 2e);
    b. demonstrating operation of welding equipment safety (1a, 1b, 2e);
    c. describing proper clothing for welding and cutting (1a, 1b, 2a).
2. Demonstrate the ability to set up and apply the theory of oxygen/acetylene cutting system by
    a. explaining types of regulators (1a, 1b, 2a);
    b. demonstrating safe methods of handling and storing cylinders (1a, 1b, 2a);
    c. explaining selection of cutting tips sizes (1a, 1b, 2a);
    d. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2d, 2e);
    e. performing safety inspection of OFC track cutting torch (1a, 1b, 2e).
3. Demonstrate an understanding of welding symbols by
    a. drawing fillet weld symbols and groove weld symbols (1a, 1b, 2e);
    b. explaining fillet weld symbols and groove weld symbols (1a, 1b, 2e).
4. Demonstrate an understanding of measuring instruments and tools for fabrication by
    a. demonstrating proper layout of circles and squares in flat plate (1a, 1b, 2a, 2e);
    b. demonstrating proper straight line cutting (1a, 1b, 2a, 2e);
    c. performing bevel cutting with a hand torch (1a, 1b, 2a, 2e);
    d. performing bevel cutting with a track torch (1a, 1b, 2a, 2e);
    e. demonstrating proper layout with a combination square (1a, 1b, 2a, 2e);
    f. demonstrating proper layout with a pipe template (1a, 1b, 2a, 2d, 2e);
    g. demonstrating layout of a pipe template (1a, 1b, 2a, 2d, 2e);
    h. performing square cutting of pipe with a pipe wraparound (1a, 1b, 2a, 2d, 2e);

i. performing square cutting of structural shapes (1a, 1b, 2a, 2e).

5. Identify structural load, stress, and strain by
    a. defining structural loads (1b, 2a, 2d, 2e);
    b. defining structural stresses (1a, 1b, 2a, 2d, 2e);
    c. defining structural strain on members (1a, 1b, 2e).
6. Demonstrate an understanding of AISC tables by
    a. estimating weld weight and cost (1a, 1b, 2e);
    b. computing weights and cost of steel (1a, 1b, 2e).
7. Estimate time and cost of weld repair by
    a. selecting proper tools and welding processes for repairs (1a, 1b, 2a, 2d, 2e);
    b. performing welding repairs on equipment (1a, 1b, 2a, 2e).
8. Demonstrate understanding of basic mathematics and plane figures by
    a. calculating angles and angular layout (1a, 1b, 2a);
    b. using calculator to calculate welding offsets of pipe runs (1a, 1b, 2a, 2e).
9. Demonstrate understanding of 45 degree lateral and 90 degree branch connections by
    a. demonstrating proper tool selection and procedures to lay out lateral joints (1a, 1b, 2a, 2e);
    b. demonstrating proper tool selection and procedures to lay out 90 degree branch connections (1a, 1b, 2a, 2e).

WLDG 1421 - Welding Fundamentals

General

Course Key
14671

Course Rubric	Course Number	Course Title
WLDG	1421	Welding Fundamentals

Semester Credit Hours	Lecture Hours	Lab Hours
4	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate safety procedures associated with oxy-fuel and arc process; perform basic welds using oxy-fuel and arc welding equipment; and identify various metals.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a, 2e);
    b. demonstrating proper inspection and operation of equipment used for each welding process (1a, 1b, 2a, 2d, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2e).
2. Demonstrate the ability to set up and apply the theory of oxygen/acetylene cutting system by
    a. explaining types of regulators (1a, 1b, 2a, 2e);
    b. demonstrating safe methods of handling and storing cylinders (1a, 1b, 2a, 2e);
    c. explaining selection of cutting tips sizes (1a, 1b, 2e);
    d. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2d, 2e).
3. Demonstrate an understanding of the proper setup of various arc welding stations by
    a. performing safety inspection of equipment and accessories (1a, 1b, 2a, 2e);
    b. explaining open circuit voltage (1a, 1b, 2e);
    c. selecting correct current for welding process (1a, 1b, 2a, 2e).
4. Perform various welds with various processes by
    a. demonstrating single and multi-pass fillet and groove welds on mild steel in various positions with multiple electrodes (1a, 1b, 2a, 2e);
    b. demonstrating visual inspection and quality control (1a, 1b, 2e).

WLDG 1428 - Intro Shielded Metal Arc Welding (SMAW)

General

Course Key
14927

Course Rubric
WLDG

Course Number
1428

Course Title
Introduction to Shielded Metal Arc Welding (SMAW)

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, and various joint designs.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Select electrodes and amperage settings for various thicknesses of materials and welding positions; define principles of arc welding; explain electrode classifications; perform SMAW operations utilizing various positions electrodes and joint designs.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a, 2e);
    b. demonstrating proper inspection and operation of equipment used for each welding process (1a, 1b, 2a, 2d, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2e);
    d. demonstrating proper use and inspection of personal protection equipment (PPE) (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating proper use and inspection of ventilation equipment (1a, 1b, 2e);
    f. demonstrating proper hot zone operation (1a, 2a, 2d, 2e);
    g. demonstrating proper work actions for working in confined spaces (1a, 1b, 2a, 2d, 2e);
    h. demonstrating proper use of precautionary labeling and MSDS information (1a, 1b, 2a, 2e).
2. Choose correct filler electrodes by
    a. identifying filler metal electrodes to AWS filler metal number system (1a, 1b, 2a, 2e);
    b. demonstrating selection of electrode size for 5 types of welded joints (1a, 1b, 2a, 2d, 2e).
3. Demonstrate the ability to set up and apply the theory of oxygen/acetylene cutting system by
    a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2d, 2e);
    b. explaining types of regulators (1a, 1b, 2a, 2e);
    c. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2e);
    d. explaining selection of cutting tips sizes (1a, 1b, 2e);
    e. demonstrating setup and manual cutting of straight and bevel edge (1a, 1b, 2a, 2d, 2e);
    f. making minor external repairs to mechanized OFC equipment and accessories (1a, 1b, 2a, 2e);
    g. demonstrating bevel cutting of pipe with pipe beveling machine (1a, 1b, 2a, 2e).
4. Demonstrate an understanding of the proper setup of a SMAW welding station by
    a. performing safety inspection of SMAW equipment and accessories (1a, 1b, 2a, 2e);
    b. explaining open circuit voltage (1a, 1b, 2e);
    c. selecting correct current for welding electrode (1a, 1b, 2a, 2e).
5. Perform fillet and square groove welds with the SMAW process by
    a. demonstrating single and multi-pass fillet welds on 3/16", ¼", ½", and ¾" mild steel in all positions with E6010, E6013, E7024, and E7018 electrodes (1a, 1b, 2a, 2e);
    b. demonstrating visual inspection and quality control (1a, 1b, 2e).
6. Perform v-groove welded joints by
    a. demonstrating AWS bend tests in the horizontal 2G, 3G, and 4G position (1a, 1b, 2a, 2d, 2e);
    b. performing visual inspection of v- groove joints to AWS D1.1 welding code (1a, 1b, 2a, 2e).

WLDG 1430 - Intro to Gas Metal Arc Welding (GMAW)

General

Course Key
14925

Course Rubric
WLDG

Course Number
1430

Course Title
Introduction to Gas Metal Arc Welding (GMAW)

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Principles of gas metal arc welding, set-up and use of Gas Metal Arc Welding(GMAW) equipment, and safe use of tools and equipment. Instruction in various joint designs.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe welding positions with various joint designs; describe the effects of welding parameters in GMAW; apply safety rules; troubleshoot equipment used, perform visual inspection; weld various types of structural material; diagnose welding problems.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a, 2e);
    b. demonstrating operation of welding equipment safety (1a, 1b, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2a).
2. Choose correct filler electrodes by
    a. identifying filler metal electrodes to AWS filler metal number system (1a, 1b, 2a, 2e);
    b. demonstrating selection of electrode size for 5 types of welded joints and metal thickness (1a, 1b, 2a, 2d, 2e).
3. Demonstrate the ability to set up and apply the theory of an oxygen/acetylene cutting system by
    a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2d, 2e);
    b. explaining types of regulators (1a, 1b, 2a, 2e);
    c. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2e);
    d. explaining selection of cutting tips sizes (1a, 1b, 2e);
    e. demonstrating setup and manual cutting of straight and bevel edges (1a, 1b, 2a, 2c, 2e);
    f. making minor external repairs to mechanized OFC equipment and accessories (1a, 1b, 2a, 2e);
    g. demonstrating bevel cutting of pipe with pipe beveling machine (1a, 1b, 2a).
4. Demonstrate an understanding of the proper setup of a GMAW welding station by
    a. performing safety inspection of GMAW equipment and accessories (1a, 1b, 2e);
    b. explaining CV welding voltage (1a, 1b, 2e);
    c. selecting correct wire speed for GMAW welding (1a, 1b, 2e);
    d. demonstrating correct electrode stick out (1a, 1b, 2d, 2e).
5. Perform fillet and v-groove welded joints with the GMAW process by
    a. passing welder qualification tests in the 2F, 3F, and 4F position on 16 gauge to 3/16" steel (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. passing welder performance qualification tests in the 2G, 3G, and 4G position on carbon steel plate (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
6. Demonstrate an understanding of spray arc transfer by
    a. demonstrating skills using spray arc transfer in the 1G position (1a, 1b, 2d, 2e);
    b. listing the GMA processes' major limitations (1a, 1b, 2d, 2e);
    c. explaining shielding gases used in short circuiting transfer and spray transfer (1a, 1b, 2d, 2e).
7. Demonstrate an understanding of types of preheat and post heat by
    a. identifying preheat (1a, 1b, 2e);
    b. identifying inter-pass temperature (1a, 1b, 2e);
    c. identifying post weld heat treatments (1a, 1b, 2e);
    d. identifying hold points (1a, 1b).
8. Demonstrate an understanding of the cause of hydrogen found in welds by
    a. identifying causes of hydrogen formation in welds (1a, 1b, 2a, 2c, 2e);
    b. identifying types of hydrogen formation in welded joints (1a, 1b, 2c).

WLDG 1434 - Intro to Gas Tungsten Arc Wldg (GTAW)

General

Course Key
14924

Course Rubric
WLDG

Course Number
1434

Course Title
Introduction to Gas Tungsten Arc Welding (GTAW)

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Principles of gas tungsten arc welding (GTAW), including set-up, GTAW equipment. Instruction in various positions and joint designs.

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe various joint designs; describe safety rules and equipment; and describe the effects of welding parameters in GTAW; weld various structural materials.

Upon successful completion of this course, students will:

1. Demonstrate an understanding of the operation of welding equipment safety by
    a. setting up welding station (1a, 1b, 2a);
    b. describing burns (1a, 1b);
    c. describing proper clothing (1a, 1b);
    d. distinguishing ultraviolet light types (1a, 1b).
2. Demonstrate an understanding of the correct methods of setting up a gas tungsten arc power supply for basic welding of low carbon steel by
    a. grinding tungsten (1a, 1b, 2e);
    b. selecting filler material (1a, 1b, 2e);
    c. setting gas flow (1a, 1b);
    d. setting correct welding current and voltage (1a, 1b, 2e);
    e. preventing contamination of welded joint (1a, 1b, 2e);
    f. selecting proper backing shielding gases (1a, 1b, 2e).
3. Demonstrate an understanding of the correct procedure for preparation of a weld joint by
    a. preparing the weld joint for low carbon steel welded joints (1a, 1b, 2d, 2e);
    b. selecting the proper welding current for low carbon steel welding (1a, 1b, 2d, 2e).
4. Demonstrate the procedure for welding the fillet welds on carbon steel joints by
    a. describing the 5 basic joints used in GTAW of carbon steel (1a, 1b, 2d, 2e);
    b. setting proper welding amperage (1a, 1b, 2e);
    c. identifying and interpreting problem in running fillet welds on 1/16" and 11 gauge carbon steel in all positions (1a, 1b, 1c, 2d, 2e);
    d. distinguishing proper stop and restart (1a, 1b, 2e);
    e. running filler passes (1a, 1b, 1c, 2a, 2d, 2e).
5. Demonstrate the procedure for testing to ASME welding qualification of welded joints by
    a. laying out and machine testing bends (1a, 1b, 2e);
    b. performing visual examination of test plates (1a, 1b, 2e);
    c. testing to ASME Section 9 welding code (1a, 1b, 1c, 2a, 2c, 2c, 2d, 2e).
6. Produce groove welds on 1/16" and 11 gauge carbon steel in the 1G, 2G, 3G, and 4G position by
    a. demonstrating root passes in 1G, 2G, 3G, and 4G position (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    b. laying out, fitting up, and interpreting welding symbols (1a, 1b, 2a, 2d, 2e).
7. Perform stainless steel fillet welds on 1/16 gauge thickness by
    a. performing butts, laps, and tees with backing shield gas (1a, 1b, 2a, 2c, 2d, 2e);
    b. performing butt weld qualification in the 1G position (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e).
8. Demonstrate an understanding of the welding classifications and the weld ability of stainless steel by
    a. explaining the classifications of 201, 304, and 410 stainless steel (1a, 1b, 2a, 2d, 2e);
    b. demonstrating the proper selection of filler metal for welding stainless steel in the 300 and 400 series (1a, 1b, 2a, 2d, 2e);
    c. explaining steps to control distortion in stainless steel (1a, 1b, 2d, 2e).

9. Demonstrate an understanding of the welding of aluminum with the GTAW process by
    a. selecting proper filler metal for each classification of aluminum (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining proper methods of cleaning of aluminum oxide from surface of weld joint (1a, 1b, 2a, 2c, 2d, 2e);
    c. selecting proper current for welding of aluminum alloys (1a, 1b, 2a, 2e);
    d. selecting proper tungsten shape for welding aluminum alloy (1a, 1b, 2a, 2e);
    e. welding fillet and groove joints in the 1F, 2F, 3F, 1G, 2G, and 3G positions (1a, 1b, 1c, 2a, 2c, 2d, 2e).

WLDG 1435 - Introduction to Pipe Welding

General

Course Key
14922

Course Rubric
WLDG

Course Number
1435

Course Title
Introduction to Pipe Welding

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) An introduction to welding of pipe using the shielded metal arc welding (SMAW) process, including electrode selection, equipment set-up, and safe shop practices. Emphasis on various welding positions and electrodes. Required Prerequisites: WLDG-1428 or approval of Program Coordinator Recommended Prerequisite(s): WLDG 2443

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites.
Type
Prerequisite

10
A Requirement block where all subrequirements are required

Take WLDG-1428;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

See course description for prerequisites/corequisites.
Type
Recommended Prerequisite

10
A Requirement block where all subrequirements are required

Take wldg-2443;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): WLDG 1428 or approval of Program Coordinator
Recommended Prerequisite(s): WLDG 2443

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe equipment utilized; demonstrate required pipe preparation and perform welds using various positions and electrodes.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a, 2c);
    b. demonstrating proper inspection and operation of equipment used for each welding process (1a, 1b, 2a, 2b, 2c, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2c);
    d. demonstrating proper use and inspection of personal protection equipment (PPE) (1a, 1b, 1c, 2c);
    e. demonstrating proper use and inspection of ventilation equipment (1a, 1b, 2d);
    f. demonstrating proper hot zone operation (1a, 1b, 2a, 2c, 2d);
    g. demonstrating proper work actions for working in confined spaces (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. demonstrating proper use of precautionary labeling and MSDS information (1a, 1b, 2a, 2c).
2. Choose the correct filler electrode by
    a. identifying filler metal electrodes to AWS filler metal number systems (1a, 1b, 2a, 2c);
    b. selecting electrode size for five types of welded joints (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate the ability to set up and apply the theory of an oxygen/acetylene cutting system by
    a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2c);
    b. explaining types of regulators (1a, 1b, 2c, 2d);
    c. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2c, 2d);
    d. explaining selection of cutting tips sizes (1a, 1b, 2a, 2c);
    e. demonstrating setup and manual cutting of straight and bevel edges (1a, 1b, 2a, 2c, 2d);
    f. making minor external repairs to mechanized OFC equipment and accessories (1a, 1b, 2a, 2c, 2d, 2e);
    g. demonstrating bevel cutting of pipe with pipe beveling machine (1a, 1b, 2a, 2e).
4. Demonstrate an understanding of proper setup of a SMAW welding station by

a. performing safety inspections of SMAW equipment and accessories (1a, 1b, 2a);

b. explaining open circuit voltage (1a, 1b, 2c, 2e);

c. selecting correct current for welding electrode (1a, 1b, 2a).

5. Perform v-groove welded joints by

a. demonstrating AWS bend tests in the horizontal 1G and 2G positions (1a, 1b, 1b, 1c, 2a, 2e);

b. performing visual inspection of v-groove joints at AWS D1.1 welding code (1a, 1b, 2a, 2c, 2e).

6. Perform 1G rolled pipe welds by

a. demonstrating 1G pipe welds using E6010 electrode downhill (1a, 1b, 2a, 2c, 2d, 2e);

b. demonstrating 1G pipe welds using E6010 and E7018 electrodes uphill (1a, 1b, 2a, 2c, 2e).

7. Perform 2G pipe welds on sch.40 and sch.60 pipe by

a. demonstrating 2G pipe welds using E6010 electrode downhill (1a, 1b, 2a, 2c, 2e);

b. demonstrating 2G pipe welds using E6010 and E7018 electrodes uphill (1a, 1b, 2a, 2d, 2e).

WLDG 2413 - Intermed Weld Using Multiple Processes

General

Course Key
14920

Course Rubric	Course Number	Course Title
WLDG	2413	Intermediate Welding Using Multiple Processes

Semester Credit Hours	Lecture Hours	Lab Hours
4	2	4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW). Required Prerequisite: WLDG-1312, WLDG-1313, WLDG-1417, WLDG-1428, WLDG-1430, and WLDG-1434 or approval of Program Coordinator

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisite/corequisite.
Type
Required

10
A Requirement block where all subrequirements are required

 # Take WLDG-1312(12746) wldg-1313 wldg-1417 wldg-1428 wldg-1430 wldg-1434;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): WLDG 1312, WLDG 1313, WLDG 1417, WLDG 1428, WLDG 1430, and WLDG 1434 or approval of Program Coordinator

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Identify proper safety equipment and tools; select the proper welding process for a given application; demonstrate skills using more than one approved welding process; analyze situations and make decisions concerning safety and electrode selections.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by

a. describing burns caused by the welding arc (1a, 1b, 2a, 2c);

b. demonstrating proper inspection and operation of equipment used for each welding process (1a, 1b, 2a, 2b, 2c, 2e);

c. describing proper clothing for welding safety (1a, 1b, 2c);

d. demonstrating proper use and inspection of personal protection equipment (PPE) (1a, 1b, 1c, 2c);

e. demonstrating proper use and inspection of ventilation equipment (1a, 1b, 2d);

f. demonstrating proper hot zone operation (1a, 1b, 2a, 2c, 2d);

g. demonstrating proper work actions for working in confined spaces (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);

h. demonstrating proper use of precautionary labeling and MSDS information (1a, 1b, 2a, 2c).

2. Choose the correct filler electrode by

a. identifying filler metal electrodes to AWS filler metal number systems (1a, 1b, 2a, 2c);

b. selecting electrode size for 5 types of welded joints (1a, 1b, 2a, 2c, 2d, 2e).

3. Demonstrate the ability to set up and apply the theory of an oxygen/acetylene cutting system by

a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2c);

b. explaining types of regulators (1a, 1b, 2c, 2d);

c. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2c, 2d);

d. explaining selection of cutting tips sizes (1a, 1b, 2a, 2c);

e. demonstrating setup and manual cutting of straight and bevel edges (1a, 1b, 2a, 2c, 2d);

f. making minor external repairs to mechanized OFC equipment and accessories (1a, 1b, 2a, 2c, 2d, 2e);

g. demonstrating bevel cutting of pipe with pipe beveling machine (1a, 1b, 2a, 2e).

4. Demonstrate an understanding of proper setup of SMAW welding station by

a. performing safety inspections of GTAW equipment and accessories (1a, 1b, 2a);

b. explaining open circuit voltage (1a, 1b, 2c, 2e);

c. selecting correct current for welding electrode (1a, 1b, 2a).

5. Perform v-groove welded joints by

a. demonstrating AWS bend tests in the horizontal 1G and 2G positions (1a, 1b, 1b, 1c, 2a, 2e);

b. performing visual inspection of v-groove joints at AWS D1.1 welding code (1a, 1b, 2a, 2c, 2e).

6. Perform 1G rolled pipe welds by
    a. demonstrating 1G pipe welds using ER70S-5 electrode uphill (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating 1G pipe welds using ER308L electrodes uphill (1a, 1b, 2a, 2c, 2e).

7. Perform 2G pipe welds on sch. 40 and sch. 60 pipe by
    a. demonstrating 2G pipe welds using ER70S-5 electrode uphill (1a, 1b, 2a, 2c, 2e);
    b. demonstrating 2G pipe welds using ER308L electrodes uphill (1a, 1b, 2a, 2d, 2e).

WLDG 2443 - Advance Shielded Metal Arc Welding SMAW

General

Course Key
14904

Course Rubric
WLDG

Course Number
2443

Course Title
Advanced Shielded Metal Arc Welding (SMAW)

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in various positions. Required Prerequisite(s): WLDG 1428 or approval of program coordinator

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites
Type
Required

10
A Requirement block where all subrequirements are required

Take WLDG-1428;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): WLDG 1428 or approval of program coordinator

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe effects of preheating and postweld heating; explain precautions used when welding various metals and alloys; distinguish between qualification and certification procedures; troubleshoot welding discontinuities; and perform open groove welds in various positions.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a, 2e);
    b. demonstrating proper inspection and operation of equipment used for each welding process (1a, 1b, 2a, 2d, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2e);
    d. demonstrating proper use and inspection of personal protection equipment (PPE) (1a, 1b, 2a, 2c, 2d, 2e);
    e. demonstrating proper use and inspection of ventilation equipment (1a, 1b, 2e);
    f. demonstrating proper hot zone operation (1a, 2a, 2d, 2e);
    g. demonstrating proper work actions for working in confined spaces (1a, 1b, 2a, 2d, 2e);
    h. demonstrating proper use of precautionary labeling and MSDS information (1a, 1b, 2a, 2e).

2. Choose correct filler electrodes by
    a. identifying filler metal electrodes to AWS filler metal number system (1a, 1b, 2a, 2e);
    b. demonstrating selection of electrode size for 5 types of welded joints (1a, 1b, 2a, 2d, 2e).

3. Demonstrate the ability to set up and apply the theory of oxygen/acetylene cutting system by
    a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2d, 2e);
    b. explaining types of regulators (1a, 1b, 2a, 2e);
    c. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2e);
    d. explaining selection of cutting tips sizes (1a, 1b, 2e);
    e. demonstrating setup and manual cutting of straight and bevel edge (1a, 1b, 2a, 2d, 2e);
    f. making minor external repairs to mechanized OFC equipment and accessories (1a, 1b, 2a, 2e);

4. Demonstrate an understanding of the proper setup of a SMAW welding station by
    a. performing safety inspection of SMAW equipment and accessories (1a, 1b, 2a, 2e);
    b. explaining open circuit voltage (1a, 1b, 2e);
    c. selecting correct current for welding electrode (1a, 1b, 2a, 2e).

5. Perform fillet and square groove welds with the SMAW process by
    a. demonstrating single and multi-pass fillet welds on 3/16", ¼", 3/8, and ¾" mild steel in all positions with E6010, E6013, and E7018 electrodes (1a, 1b, 2a, 2e);
    b. demonstrating single and multipass fillet welds on ¼", 3/8", and ¾" mild steel in the 2F position with E7024 electrodes (1a, 1b, 2e);
    c. demonstrating visual inspection and quality control (1a, 1b, 2e).

6. Perform v-groove welded joints with backing and with open root by
    a. demonstrating AWS bend tests in the 2G, 3G, and 4G position (1a, 1b, 2a, 2d, 2e);
    b. performing visual inspection of v-groove joints to AWS D1.1 welding code (1a, 1b, 2a, 2e).

WLDG 2451 - Advanc Gas Tungsten Arch Welding (GTAW)

General

Course Key
14919

Course Rubric
WLDG

Course Number
2451

Course Title
Advanced Gas Tungsten Arc Welding (GTAW)

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Advanced topics in GTAW welding, including welding in various positions and directions. Required Prerequisite: WLDG-1434 or approval of Program Coordinator

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites
Type
Required

10
A Requirement block where all subrequirements are required

#Take WLDG-1434;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): WLDG 1434 or approval of Program Coordinator

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Demonstrate GTAW in various welding positions; describe safety rules and equipment used; and describe the effects of welding parameters in GTAW; weld various joint designs; diagnose welding problems; and perform visual inspection.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a, 2c);
    b. demonstrating proper inspection and operation of equipment used for each welding process (1a, 1b, 2a, 2b, 2c, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2c);
    d. demonstrating proper use and inspection of personal protection equipment (PPE) (1a, 1b, 1c, 2c);
    e. demonstrating proper use and inspection of ventilation equipment (1a, 1b, 2d);
    f. demonstrating proper hot zone operation (1a, 1b, 2a, 2c, 2d);
    g. demonstrating proper work actions for working in confined spaces (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. demonstrating proper use of precautionary labeling and MSDS information (1a, 1b, 2a, 2c).
2. Choose the correct filler electrode by
    a. identifying filler metal electrodes to AWS filler metal number systems (1a, 1b, 2a, 2c);
    b. selecting electrode size for 5 types of welded joints (1a, 1b, 2a, 2c, 2d, 2e).
3. Demonstrate the ability to set up and apply the theory of an oxygen/acetylene cutting system by
    a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2c);
    b. explaining types of regulators (1a, 1b, 2c, 2d);
    c. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2c, 2d);
    d. explaining selection of cutting tips sizes (1a, 1b, 2a, 2c);
    e. demonstrating setup and manual cutting of straight and bevel edges (1a, 1b, 2a, 2c, 2d);
    f. making minor external repairs to mechanized OFC equipment and accessories (1a, 1b, 2a, 2c, 2d, 2e);
    g. demonstrating bevel cutting of pipe with pipe beveling machine (1a, 1b, 2a, 2e).
4. Demonstrate an understanding of proper setup of SMAW welding station by
    a. performing safety inspections of GTAW equipment and accessories (1a, 1b, 2a);
    b. explaining open circuit voltage (1a, 1b, 2c, 2e);
    c. selecting correct current for welding electrode (1a, 1b, 2a).
5. Perform v-groove welded joints by
    a. demonstrating AWS bend tests in the horizontal 1G and 2G positions (1a, 1b, 1b, 1c, 2a, 2e);
    b. performing visual inspection of v-groove joints at AWS D1.1 welding code (1a, 1b, 2a, 2c, 2e).

6. Perform 1G rolled pipe welds by
    a. demonstrating 1G pipe welds using ER70S-5 electrode uphill (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating 1G pipe welds using ER308L electrodes uphill (1a, 1b, 2a, 2c, 2e).

7. Perform 2G pipe welds on sch. 40 and sch. 60 pipe by
    a. demonstrating 2G pipe welds using ER70S-5 electrode uphill (1a, 1b, 2a, 2c, 2e);
    b. demonstrating 2G pipe welds using ER308L electrodes uphill (1a, 1b, 2a, 2d, 2e).

WLDG 2453 - Advanced Pipe Welding

General

Course Key
14918

Course Rubric
WLDG

Course Number
2453

Course Title
Advanced Pipe Welding

Semester Credit Hours
4

Lecture Hours
2

Lab Hours
4

Course Classification
Workforce Education Course Manual (WECM)

Description
(4-2-4) Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes. Required Prerequisite: WLDG-2443 or approval of Program Coordinator

View Course Availability on MyTCCTrack

Find out if you can earn credit for this course through Prior Learning Assessment (PLA)

Requirements

Simple Requisites

See course description for prerequisites
Type
Required

10
A Requirement block where all subrequirements are required

Take WLDG-2443;
A Subrequirement block where all groups are required

30
(ALL COURSES): Take all of the following courses...

Requirements
Required Prerequisite(s): WLDG 2443 or approval of Program Coordinator

Course Learning Outcomes

Course Learning Outcomes
End-of-Course Outcomes: Describe equipment and required pipe preparation and perform 5G and 6G welds using various electrodes.

Upon successful completion of this course, students will:

1. Demonstrate safety in the welding station by
    a. describing burns caused by the welding arc (1a, 1b, 2a, 2c);
    b. demonstrating proper inspection and operation of equipment used for each welding process (1a, 1b, 2a, 2b, 2c, 2e);
    c. describing proper clothing for welding safety (1a, 1b, 2c);
    d. demonstrating proper use and inspection of personal protection equipment (PPE) (1a, 1b, 1c, 2c);
    e. demonstrating proper use and inspection of ventilation equipment (1a, 1b, 2d);
    f. demonstrating proper hot zone operation (1a, 1b, 2a, 2c, 2d);
    g. demonstrating proper work actions for working in confined spaces (1a, 1b, 1c, 2a, 2b, 2c, 2d, 2e);
    h. demonstrating proper use of precautionary labeling and MSDS information (1a, 1b, 2a, 2c).

2. Choose the correct filler electrode by
    a. identifying filler metal electrodes to AWS filler metal number systems (1a, 1b, 2a, 2c);
    b. selecting electrode size for five types of welded joints (1a, 1b, 2a, 2c, 2d, 2e).

3. Demonstrate the ability to set up and apply the theory of an oxygen/acetylene cutting system by
    a. performing safety inspection of manual OFC equipment and accessories (1a, 1b, 2a, 2c, 2d, 2e);
    b. explaining types of regulators (1a, 1b, 2c, 2d);
    c. demonstrating safe method of handling and storing cylinders (1a, 1b, 2a, 2c, 2d);
    d. explaining selection of cutting tips sizes (1a, 1b, 2a, 2c);
    e. demonstrating setup and manual cutting of straight and bevel edges (1a, 1b, 2a, 2c, 2d);
    f. making minor external repairs to mechanized OFC equipment and accessories (1a, 1b, 2a, 2c, 2d, 2e);
    g. demonstrating bevel cutting of pipe with pipe beveling machine (1a, 1b, 2a, 2e).

4. Demonstrate an understanding of proper setup of SMAW welding station by
    a. performing safety inspections of SMAW equipment and accessories (1a, 1b, 2a);
    b. explaining open circuit voltage (1a, 1b, 2c, 2e);
    c. selecting correct current for welding electrode (1a, 1b, 2a).

5. Perform v-groove welded joints by
    a. demonstrating AWS bend tests in the horizontal 1G and 2G positions (1a, 1b, 1b, 1c, 2a, 2e);
    b. performing visual inspection of v-groove joints at AWS D1.1 welding code (1a, 1b, 2a, 2c, 2e).

6. Perform 1G rolled pipe welds by
    a. demonstrating 1G pipe welds using E6010 electrode uphill (1a, 1b, 2a, 2c, 2d, 2e);
    b. demonstrating 1G pipe welds using E6010 and E7018 electrodes uphill and downhill (1a, 1b, 2a, 2c, 2e).

7. Perform 6G pipe welds on sch. 40 and sch. 60 pipe by
    a. demonstrating 6G pipe welds using E6010 electrode downhill (1a, 1b, 2a, 2c, 2e);
    b. demonstrating 6G pipe welds using E6010 and E7018 electrodes uphill (1a, 1b, 2a, 2d, 2e).

Course Sets

Math Elective - Information Technology (3 Semester Credit Hours)

Complete ANY:

- MATH 1314 College Algebra
- MATH 1316 Plane Trigonometry
- MATH 1332 Contemporary Math - Quant Reas
- MATH 1342 Elementary Statistical Methods
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I

Social and Behavioral Science (3 Semester Credit Hours)

Complete ANY:

- ANTH 2346 General Anthropology
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- GEOG 1301 Physical Geography
- GEOG 1302 Human Geography
- GEOG 1303 World Regional Geography
- PSYC 2301 General Psychology
- SOCI 1301 Introduction to Sociology

Government and Political Science (3 Semester Credit Hours)

Complete ANY:

- GOVT 2305 Federal Government
- GOVT 2306 Texas Government

Elective (1 Semester Credit Hour)

- POFT 1127 Introduction to Keyboarding
- AERM 1101 Introduction to Aviation
- FDNS 1103 Introduction to Dietetics
- RSPT 1166 Practicum-Respiratory Therapy
- RSPT 1101 Intro to Respiratory Care
- EMSP 2160 Clinical-EMT Paramedic
- CNBT 1110 Basic Construction Safety
- MUSI 2181 Piano Class III
- MUSI 2182 Piano Class IV
- KINE 1102 Aerobic Fitness - Beginning
- KINE 1104 Bowling - Beginning
- KINE 1105 Camping/Backpacking - Beg
- KINE 1107 Conditioning - Beginning
- KINE 1113 Kickboxing - Beginning
- KINE 1116 Recreational Sports - Begin
- KINE 1117 Sailing - Beginning
- KINE 1119 Self Defense-Beginning
- KINE 1121 Swim Conditioning - Beginning
- KINE 1122 Swimming - Beginning
- KINE 1125 Tennis - Beginning
- KINE 1128 Volleyball - Beginning
- KINE 1129 Walk/Jog - Beginning
- KINE 1131 Water Aerobics - Beginning
- KINE 1132 Water Exercise - Beginning
- KINE 1133 Weight Training - Beginning
- KINE 1134 Yoga - Beginning
- KINE 2102 Aerobic Fitness - Intermediate
- KINE 2104 Bowling - Intermediate
- KINE 2107 Conditioning - Intermediate
- KINE 1148 Pilates - Beginning
- KINE 2113 Kickboxing - Intermediate
- KINE 2117 Sailing - Intermediate
- KINE 2121 Swim Conditioning - Intermed
- KINE 2122 Swimming - Intermediate
- KINE 2123 Swimming - Advanced
- KINE 2125 Tennis - Intermediate
- KINE 2128 Volleyball - Intermediate
- KINE 2129 Walk/Jog - Intermediate
- KINE 2131 Water Aerobics - Intermediate
- KINE 2132 Water Exercise - Intermediate
- KINE 2133 Weight Training - Intermediate
- KINE 2134 Yoga - Intermediate
- KINE 2148 Pilates - Intermediate
- KINE 1164 Intro Physcl Fitness/Wellness
- AERM 1141 Wood, Fabric, and Finishes
- AERM 1153 Aircraft Welding
- MUEN 1122 Jazz Ensembles
- MUEN 1123 Band
- MUEN 1124 Orchestra
- MUEN 1132 Combo
- MUEN 1133 Chamber Winds
- MUEN 1134 Chamber Strings
- MUEN 1135 Guitar Ensemble
- MUEN 1141 Large Choral Ensembles
- MUEN 1151 Chamber Singers
- MUEN 2122 Jazz Ensembles
- MUEN 2123 Band
- MUEN 2124 Orchestra
- MUEN 2132 Combo
- MUEN 2133 Chamber Winds
- MUEN 2134 Chamber Strings
- MUEN 2135 Guitar Ensemble
- MUEN 2141 Large Choral
- MUEN 2151 Chamber Singers
- HITT 2149 RHIT Competency Review
- HPRS 2172 Health Care Communications
- KINE 2119 Self Defense-Intermediate
- EMSP 2161 Clinical - EMT Paramedic
- EMSP 2162 Clinical - EMT Paramedic
- VNSG 1116 Nutrition
- DSVT 1103 Intro to Vascular Technology
- LBRA 1174 Practicum Library Technology
- MUSI 1116 Sight Singing & Ear Train I
- MUSI 1117 Sight Singing & Ear Train II
- MUSI 2116 Sight Singing & Ear Train III
- MUSI 2117 Sight Singing & Ear Train IV
- MUAP 1190 Individual Instruction
- MUAP 1191 Individual Instruction
- MUSI 1181 Piano Class I
- MUSI 1183 Voice Class
- MUSI 1192 Guitar Class
- MDCA 1160 Clinical-Med/Clinical Asst
- MDCA 1161 Clinical-Med/Clinical Asst
- MDCA 1162 Clinical-Med/Clinical Asst
- RNSG 1105 Nursing Skills I
- FDNS 2168 Practicum-Comm Nutrit/Wellnes
- FDNS 2169 Practicum - Clinical Dietetics
- KINE 1149 Fencing - Beginning
- KINE 2149 Fencing - Intermediate
- MUSI 1182 Piano Class II
- KINE 2127 Pickleball - Intermediate
- KINE 1127 Pickleball - Beginning
- EMSP 1160 Clinical-Emergency Med Tech
- FDNS 1168 Practicum - Dietary Management
- AIRP 2143 Flight Inst - Multiengine Airp
- DRAM 1120 Theater Practicum I
- DRAM 1121 Theater Practicum II
- DRAM 2120 Theater Practicum III
- DRAM 2121 Theater Practicum IV
- FDNS 2170 Seminar for Dietetics
- AERM 2172 Oral/Practical Exams Airframe
- AERM 2173 Oral/practical Exam Powerplant
- RSPT 1113 Respiratory Care Pharmacology
- DNTA 1103 Reg Dental Assistant Exam Rev
- RSPT 2147 Specialties Respiratory Care
- RSPT 2139 Advanced Cardiac Life Support
- RSPT 2131 Simulations in RSPT Care
- RSPT 1141 Respiratory Home Care/Rehab
- RNSG 2161 Clinical-Reg Nursing/Nurse
- RNSG 2163 Clinical-Reg Nursing/Nurse
- DMSO 1110 Introduction to Sonography
- DMSO 2130 Advanced Ultrasound and Review
- AIRP 2151 Multiengine Flight
- AIRP 2174 Topics/Trends Helicopter Ind
- AERM 2171 Oral and Practical Exams, Gen
- DANC 1110 Tap Dance
- DANC 1112 Dance Practicum
- DANC 1151 Freshman Dance Performance
- DANC 2151 Sophomore Dance Performance

Government and Political Science, or Social and Behavioral Sciences (3 Semester Credit Hours)

Complete ALL:

- ANTH 2346 General Anthropology
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- GEOG 1301 Physical Geography
- GEOG 1302 Human Geography
- GEOG 1303 World Regional Geography
- GOVT 2305 Federal Government
- GOVT 2306 Texas Government
- PSYC 2301 General Psychology
- SOCI 1301 Introduction to Sociology

Mathematics (3 Semester Credit Hours)

Complete ANY:

- MATH 1314 College Algebra
- MATH 1316 Plane Trigonometry
- MATH 1324 Math Business/Social Sciences
- MATH 1325 Calculus-Business/Soc Science
- MATH 1332 Contemporary Math - Quant Reas
- MATH 1342 Elementary Statistical Methods
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I

Speech and Communication Skills (3 Semester Credit Hours)

Complete ANY:

- SPCH 1311 Intro to Speech Communication
- SPCH 1315 Public Speaking
- SPCH 1321 Business and Professional Comm

Accounting Information Management Elective (3 Semester Credit Hours)

- POFT 1127 Introduction to Keyboarding
- POFT 1319 Records & Info Management
- BMGT 1301 Supervision
- BMGT 1305 Communications in Management
- BMGT 2309 Leadership
- ACNT 1311 Intro/Computerized Accounting
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- ACNT 1313 Computerized Acct Applications
- MRKG 1311 Principles of Marketing
- POFI 1449 Spreadsheets
- POFI 2401 Word Processing

- ITSE 2417 Java Programming
- ITSW 1407 Introduction to Database
- ITNW 1454 Implement & Support Servers
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- COSC 1436 Programming Fundamentals I
- ITSE 1450 System Analysis and Design
- POFI 2431 Desktop Publishing
- POFT 1329 Beginning Keyboarding
- ITSE 1411 Beginning Web Programming
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- ECON 2301 Prin of Macroeconomics Honors
- BUSI 1301 Business Principles
- ECON 2302 Prin of Microeconomics Honors
- ITSE 1430 Introduction to C# Programming
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- IBUS 1301 Principles of Exports
- IBUS 1302 Principles of Imports
- BUSI 2301 Business Law
- ACNT 1303 Introduction to Accounting I
- ACNT 1329 Payroll/Bus Tax Accounting
- ACNT 2303 Intermediate Accounting I
- ACNT 2309 Cost Accounting
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- BCIS 1305 Business Computer Applications
- ITSY 1300 Fundament Information Security
- ITSY 2342 Incident Response & Handling
- COSC 1420 "C" Programming
- COSC 2436 Programming Fundamentals III
- POFT 2312 Bus Correspond/Communication
- POFT 1301 Business English
- POFT 1409 Administrative Office Procd I
- COSC 1301 Introduction to Computing
- ITSC 2346 Computer Center Management
- BUSI 1307 Personal Finance
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- ITSE 2409 Database Programming
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- ITCC 1414 CCNA 1: Introduction Networks
- ITCC 1444 CCNA 2: Switch/Rout/Wireless
- ITCC 2420 CCNA 3: Entp/Ntwk/Sec/Automat
- ACNT 2302 Accounting Capstone
- ITNW 1309 Fundamentals of Cloud Comp
- ITSE 2310 iOS Application Programming
- ITSE 2302 Intermediate Web Programming
- ITNW 2427 Advanced Cloud Concepts
- ITSC 1416 Linux Installation/Configurat
- ITSE 1303 Introduction to MySQL
- ITSE 1333 Mobile Application Development
- ITNW 1436 Cloud Deployment/Infrst Mgmt
- ITSY 2372 Ethical Hacking
- ITNW 1425 Fundamentals Networking Tech
- ITNW 1408 Implement & Support Client Sys
- ITSE 2371 Android OS Programming
- ITSC 2439 Personal Comp Help Desk Supp
- ITSY 2400 Operating System Security
- ITSY 2459 Security Assessment & Auditing
- ITSY 2443 Computer System Forensics
- ITSY 2401 Firewalls & Network Security
- ITSY 2330 Intrusion Detection
- ITSY 2341 Security Management Practices
- BMGT 2482 Business Admin & Management
- ITSE 1479 Intro to Scripting Languages

Electrical Engineering Electives (3 Semester Credit Hours)

Complete ALL:

- ENGR 2301 Engineering Mechanics-Statics
- ENGR 2302 Engineer Mechanics-Dynamics
- ENGR 2308 Engineering Economics
- MATH 2318 Linear Algebra
- GOVT 2306 Texas Government
- HIST 1302 United States History II
- ENGL 2311 Technical & Business Writing
- MATH 2320 Differential Equations

Directed Electives - AATE EC-6 (3 Semester Credit Hours)

Complete ANY:

- ARTS 1301 Art Appreciation
- BIOL 1408 Biol Non-Sci Maj I (Lec/Lab)
- ECON 2301 Principles of Macroeconomics
- ENGL 1302 Composition II
- GEOG 1303 World Regional Geography
- GEOL 1401 Earth Sc Non-Sci Mj (Lec/Lab)
- GEOL 1403 Physical Geology (Lec/Lab)
- HIST 1301 United States History I
- HIST 1302 United States History II
- HIST 2301 Texas History
- MUSI 1306 Music Appreciation
- TECA 1303 Families, School & Community
- TECA 1311 Educating Young Children
- TECA 1354 Child Growth and Development

Entrepreneurship & Small Business Management Elective

- BMGT 1301 Supervision
- BMGT 1305 Communications in Management
- BMGT 2309 Leadership
- ACNT 1311 Intro/Computerized Accounting
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- ACNT 1313 Computerized Acct Applications
- MRKG 1311 Principles of Marketing
- RELE 1303 Real Estate Appraisal
- RELE 1307 Real Estate Investments
- RELE 1311 Law of Contracts
- RELE 1315 Property Management
- RELE 1319 Real Estate Finance
- RELE 2301 Law of Agency
- HRPO 2301 Human Resources Management
- ITSE 2417 Java Programming
- ITSW 1407 Introduction to Database
- ITNW 1454 Implement & Support Servers
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- ITSE 1450 System Analysis and Design
- GISC 1402 Understand Geographic Systems
- GISC 2411 Geog Infor System Applications
- ITSE 1411 Beginning Web Programming
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- BUSI 1301 Business Principles
- ITSE 1430 Introduction to C# Programming
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- HRPO 1311 Human Relations
- RELE 1300 Contract Forms and Addenda
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- IBUS 1301 Principles of Exports
- IBUS 1302 Principles of Imports
- LMGT 1319 Intro to Business Logistics
- LMGT 1323 Domestic & Internatl Trans Mgt
- LMGT 1325 Warehouse & Distribut Cntr Mgt
- LMGT 2334 Principles of Traffic Mgt
- RELE 1406 Principles of Real Estate
- BUSI 2301 Business Law
- ACNT 1303 Introduction to Accounting I
- ACNT 1329 Payroll/Bus Tax Accounting
- ACNT 2303 Intermediate Accounting I
- ACNT 2309 Cost Accounting
- ITSC 2346 Computer Center Management
- HRPO 2307 Organizational Behavior
- BUSI 1307 Personal Finance
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- ITSE 2409 Database Programming
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- HRPO 1302 Human Resources Train/Develop
- HRPO 1306 Basic Mediator Training
- HRPO 2303 Employment Practices
- HRPO 2304 Employee Relations
- HRPO 2305 Human Resources Info Systems
- HRPO 2306 Benefits and Compensation
- ITCC 1414 CCNA 1: Introduction Networks
- ITCC 1444 CCNA 2: Switch/Rout/Wireless
- ITCC 2420 CCNA 3: Entp/Ntwk/Sec/Automat
- LMGT 2371 Ldrship Logist & Sply Chn Mgmt
- LMGT 2388 Intern: Logistics & Materials
- ACNT 2302 Accounting Capstone
- ITNW 1309 Fundamentals of Cloud Comp
- ITSE 2310 iOS Application Programming
- ITSE 2302 Intermediate Web Programming
- ITNW 2427 Advanced Cloud Concepts
- ITSC 1416 Linux Installation/Configurat
- ITSE 1303 Introduction to MySQL
- ITSE 1333 Mobile Application Development
- ITNW 1436 Cloud Deployment/Infrst Mgmt
- ITNW 1425 Fundamentals Networking Tech
- ITNW 1408 Implement & Support Client Sys
- ITSE 2371 Android OS Programming
- ITSC 2439 Personal Comp Help Desk Supp
- GISC 2401 Data Acq/Analy in GIS
- GISC 2402 GIS Design/Raster Analysis
- GISC 2404 GIS Design/Vector Analysis
- GISC 2264 Practicum - Cartography
- GISC 2420 Interm Geog Inform Systems
- GISC 2435 Programming for GIS
- BMGT 2482 Business Admin & Management
- ITSE 1479 Intro to Scripting Languages

Civil Engineering Elective (3 Semester Credit Hours)

Complete ANY:

- ENGR 2302 Engineer Mechanics-Dynamics
- ENGR 2332 Mechanics of Materials
- HIST 1302 United States History II
- MATH 2320 Differential Equations

Freshman Ensemble Course (1 Semester Credit Hour)

- MUEN 1122 Jazz Ensembles
- MUEN 1123 Band
- MUEN 1124 Orchestra
- MUEN 1132 Combo
- MUEN 1133 Chamber Winds
- MUEN 1134 Chamber Strings
- MUEN 1135 Guitar Ensemble
- MUEN 1141 Large Choral Ensembles
- MUEN 1151 Chamber Singers

Fire Protection Technology Elective (3 Semester Credit Hours)

Complete ALL:

- FIRS 1301 Firefighter Certification I
- FIRS 1313 Firefighter Certification III
- FIRS 1319 Firefighter Certification IV
- FIRS 1323 Firefighter Certification V
- FIRS 1329 Firefighter Certification VI
- FIRT 1371 Intro to Emergency Management
- FIRT 2309 Firefight Strategy & Tactics I

Human Resources Management Elective (3 Semester Credit Hours)

- BMGT 1301 Supervision
- BMGT 1305 Communications in Management

- BMGT 2309 Leadership
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- MRKG 1311 Principles of Marketing
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- BUSI 1301 Business Principles
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- BUSI 2301 Business Law
- ACNT 1329 Payroll/Bus Tax Accounting
- BCIS 1305 Business Computer Applications
- BUSI 1307 Personal Finance
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- BMGT 2482 Business Admin & Management

Creative Arts or Language, Culture and Philosophy (3 Semester Credit Hours)

Complete ANY:

- ARTS 1301 Art Appreciation
- ARTS 1303 Art Hist I (Prehist - 14 cnt)
- COMM 2366 Film Appreciation
- DANC 2303 Dance Appreciation
- DRAM 1310 Theater Appreciation
- DRAM 2366 Film Appreciation
- HUMA 1315 Fine Arts Appreciation
- MUSI 1306 Music Appreciation
- MUSI 1307 Music Literature
- MUSI 1310 American Music
- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2327 American Literature I
- ENGL 2328 American Literature II
- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- HIST 2311 Western Civilization I
- HIST 2312 Western Civilization II
- HIST 2321 World Civilizations I
- HIST 2322 World Civilizations II
- HUMA 1301 Introduction to Humanities I
- PHIL 1301 Introduction to Philosophy
- PHIL 1304 Intro to World Religions
- PHIL 2306 Introduction to Ethics
- PHIL 2316 Classical Philosophy
- SPAN 2311 Intermediate Spanish I
- SPAN 2312 Intermediate Spanish II

Business Administration Elective (3 Semester Credit Hours)

- BMGT 1301 Supervision
- BMGT 1305 Communications in Management
- BMGT 2309 Leadership
- ACNT 1311 Intro/Computerized Accounting
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- ACNT 1313 Computerized Acct Applications
- MRKG 1311 Principles of Marketing
- RELE 1303 Real Estate Appraisal
- RELE 1307 Real Estate Investments
- RELE 1311 Law of Contracts
- RELE 1315 Property Management
- RELE 1319 Real Estate Finance
- RELE 2301 Law of Agency
- HRPO 2301 Human Resources Management
- ITSE 2417 Java Programming
- ITSW 1407 Introduction to Database
- ITNW 1454 Implement & Support Servers
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- COSC 1436 Programming Fundamentals I
- ITSE 1450 System Analysis and Design
- GISC 1402 Understand Geographic Systems
- GISC 2411 Geog Infor System Applications
- ITSE 1411 Beginning Web Programming
- FSHN 2305 Fashion Retailing
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- BUSI 1301 Business Principles
- ITSE 1430 Introduction to C# Programming
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- FSHN 2309 Fashion Image
- HRPO 1311 Human Relations
- RELE 1300 Contract Forms and Addenda
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- IBUS 1301 Principles of Exports
- IBUS 1302 Principles of Imports
- LMGT 1319 Intro to Business Logistics
- LMGT 1323 Domestic & Internatl Trans Mgt
- LMGT 1325 Warehouse & Distribut Cntr Mgt
- LMGT 2334 Principles of Traffic Mgt
- RELE 1406 Principles of Real Estate
- BUSI 2301 Business Law
- ACNT 1303 Introduction to Accounting I
- ACNT 1329 Payroll/Bus Tax Accounting
- ACNT 2303 Intermediate Accounting I
- ACNT 2309 Cost Accounting
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- FSHN 2301 Fashion Promotion
- COSC 1420 "C" Programming
- COSC 2436 Programming Fundamentals III
- FSHN 1301 Textiles
- FSHN 1312 Apparel/Acc Marketing Opr
- ITSC 2346 Computer Center Management
- HRPO 2307 Organizational Behavior
- BUSI 1307 Personal Finance
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- ITSE 2409 Database Programming
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- HRPO 1302 Human Resources Train/Develop
- HRPO 1306 Basic Mediator Training
- HRPO 2303 Employment Practices
- HRPO 2304 Employee Relations
- HRPO 2305 Human Resources Info Systems
- HRPO 2306 Benefits and Compensation
- ITCC 1414 CCNA 1: Introduction Networks
- ITCC 1444 CCNA 2: Switch/Rout/Wireless
- ITCC 2420 CCNA 3: Entp/Ntwk/Sec/Automat
- LMGT 2371 Ldrship Logist & Sply Chn Mgmt
- LMGT 2388 Intern: Logistics & Materials
- ACNT 2302 Accounting Capstone
- ITNW 1309 Fundamentals of Cloud Comp
- ITSE 2310 iOS Application Programming
- ITSE 2302 Intermediate Web Programming
- ITNW 2427 Advanced Cloud Concepts
- ITSC 1416 Linux Installation/Configurat
- ITSE 1303 Introduction to MySQL
- ITSE 1333 Mobile Application Development
- ITNW 1436 Cloud Deployment/Infrst Mgmt
- ITNW 1425 Fundamentals Networking Tech
- ITNW 1408 Implement & Support Client Sys
- ITSE 2371 Android OS Programming
- ITSC 2439 Personal Comp Help Desk Supp
- GISC 2401 Data Acq/Analy in GIS
- GISC 2402 GIS Design/Raster Analysis
- GISC 2404 GIS Design/Vector Analysis
- GISC 2264 Practicum - Cartography
- GISC 2420 Interm Geog Inform Systems
- GISC 2435 Programming for GIS
- BMGT 2482 Business Admin & Management
- ITSE 1479 Intro to Scripting Languages

Associate of Science Elective (3 Semester Credit Hours)

Complete ANY:

- BIOL 1406 Biol Scien Maj I (Lec/Lab)
- BIOL 1407 Biol Science Maj II (Lec/Lab)
- BIOL 2421 Microbiology Sci Maj (lec/lab)
- BIOL 2316 Genetics (Lecture)
- COSC 1420 "C" Programming
- COSC 1436 Programming Fundamentals I
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- COSC 2436 Programming Fundamentals III
- GEOL 1402 Earth Sci Non-Sc II (Lec/Lab)
- GEOL 1403 Physical Geology (Lec/Lab)
- GEOL 1404 Historical Geology (Lec/Lab)
- GEOL 1447 Meteorology (Lec/Lab)
- PHYS 1401 College Physics I (Lec/Lab)
- PHYS 1402 College Physics II (Lec/Lab)
- PHYS 2425 University Physic I (Lec/Lab)
- PHYS 2426 University Phys II (Lec/Lab)
- CHEM 1411 General Chemistry I (Lec/Lab)
- CHEM 1412 General Chemistry II
- CHEM 2423 Organic Chemistry I (Lec/Lab)
- CHEM 2425 Organic Chem II (Lec+Lab)
- ENGR 1201 Introduction to Engineering
- ENGR 1304 Engineering Graphics I
- ENGR 2301 Engineering Mechanics-Statics
- ENGR 2302 Engineer Mechanics-Dynamics
- ENGR 2305 Electrical Circuits I
- ENGR 2332 Mechanics of Materials
- MATH 2318 Linear Algebra
- MATH 2320 Differential Equations
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I
- MATH 2414 Calculus II
- MATH 2415 Calculus III
- BIOL 1408 Biol Non-Sci Maj I (Lec/Lab)
- BIOL 1409 Biol Non-Sci Maj II (Lec/Lab)
- BIOL 2401 Anatomy & Physiology I
- BIOL 2402 Anatomy & Physiology II
- BIOL 2406 Environmental Biol (Lec/Lab)
- CHEM 1405 Intro Chemistry I (Lec/Lab)
- ENGR 2308 Engineering Economics
- GEOL 1401 Earth Sc Non-Sci Mj (Lec/Lab)
- PHYS 1403 Stars and Galaxies (Lec/Lab)
- PHYS 1404 Solar System (Lec/Lab)
- PHYS 1415 Physical Science I (Lec/Lab)
- GEOL 1445 Oceanography (Lec/Lab)
- GEOL 1405 Enviro Science (lec/lab)

Horticulture Elective (3 Semester Credit Hours)

Complete ANY:

- HALT 2307 Horticultural Food Crops
- HALT 1309 Interior Plants
- HALT 1311 Shrubs, Vines, & Groundcovers
- HALT 1317 Trees
- HALT 1333 Landscape Irrigation
- HALT 1353 Landscape Computer Design
- HALT 1422 Landscape Design
- HALT 2301 Arboriculture
- HALT 2308 Greenhouse Management
- HALT 2314 Plant Propagation
- HALT 2315 Landscape Management
- HALT 2320 Nursery Production & Mgt
- AGCR 1304 Intro to Sustainable Agri
- HALT 1324 Turfgrass Sci and Mmgt
- HALT 2321 Small Farming

Industrial Engineering Elective (3 Semester Credit Hours)

Complete ALL:

- ENGR 2301 Engineering Mechanics-Statics

- ENGR 2302 Engineer Mechanics-Dynamics
- ENGR 2308 Engineering Economics
- GOVT 2306 Texas Government
- HIST 1302 United States History II
- ENGL 2311 Technical & Business Writing
- MATH 2320 Differential Equations

Social Work Directed Elective (3 Semester Credit Hours)

Complete ANY:

- BIOL 1406 Biol Scien Maj I (Lec/Lab)
- BIOL 1407 Biol Science Maj II (Lec/Lab)
- BIOL 2401 Anatomy & Physiology I
- PSYC 2301 General Psychology
- PSYC 2315 Psychology of Adjustment
- SOCI 1301 Introduction to Sociology
- MATH 1342 Elementary Statistical Methods

Sophomore Ensemble Course (1 Semester Credit Hour)

- MUEN 2122 Jazz Ensembles
- MUEN 2123 Band
- MUEN 2124 Orchestra
- MUEN 2132 Combo
- MUEN 2133 Chamber Winds
- MUEN 2134 Chamber Strings
- MUEN 2135 Guitar Ensemble
- MUEN 2141 Large Choral
- MUEN 2151 Chamber Singers

Cooperative Education Requirement

Complete ANY:

- LGLA 2380 Coop Education-Legal Ast/Para
- Complete ALL:
    - LGLA 2281 Coop Educ-Legal Assistant
    - LGLA 2288 Internship-Legal Assistant

Composition (Code 010)

Complete ANY:

- ENGL 1301 Composition I

Accounting Information Management Elective (4 Semester Credit Hours)

- POFT 1127 Introduction to Keyboarding
- POFT 1319 Records & Info Management
- BMGT 1301 Supervision
- BMGT 1305 Communications in Management
- BMGT 2309 Leadership
- ACNT 1311 Intro/Computerized Accounting
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- ACNT 1313 Computerized Acct Applications
- MRKG 1311 Principles of Marketing
- POFI 1449 Spreadsheets
- POFI 2401 Word Processing
- ITSE 2417 Java Programming
- ITSW 1407 Introduction to Database
- ITNW 1454 Implement & Support Servers
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- COSC 1436 Programming Fundamentals I
- ITSE 1450 System Analysis and Design
- POFI 2431 Desktop Publishing
- POFT 1329 Beginning Keyboarding
- ITSE 1411 Beginning Web Programming
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- BUSI 1301 Business Principles
- ITSE 1430 Introduction to C# Programming
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- IBUS 1301 Principles of Exports
- IBUS 1302 Principles of Imports
- BUSI 2301 Business Law
- ACNT 1303 Introduction to Accounting I
- ACNT 1329 Payroll/Bus Tax Accounting
- ACNT 2303 Intermediate Accounting I
- ACNT 2309 Cost Accounting
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- BCIS 1305 Business Computer Applications
- ITSY 1300 Fundament Information Security
- ITSY 2342 Incident Response & Handling
- COSC 1420 "C" Programming
- COSC 2436 Programming Fundamentals III
- POFT 2312 Bus Correspond/Communication
- POFT 1301 Business English
- POFT 1409 Administrative Office Procd I
- COSC 1301 Introduction to Computing
- ITSC 2346 Computer Center Management
- BUSI 1307 Personal Finance
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- ITSE 2409 Database Programming
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- ITCC 1414 CCNA 1: Introduction Networks
- ITCC 1444 CCNA 2: Switch/Rout/Wireless
- ITCC 2420 CCNA 3: Entp/Ntwk/Sec/Automat
- ACNT 2302 Accounting Capstone
- ITNW 1309 Fundamentals of Cloud Comp
- ITSE 2310 iOS Application Programming
- ITSE 2302 Intermediate Web Programming
- ITNW 2427 Advanced Cloud Concepts
- ITSC 1416 Linux Installation/Configurat
- ITSE 1303 Introduction to MySQL
- ITSE 1333 Mobile Application Development
- ITNW 1436 Cloud Deployment/Infrst Mgmt
- ITSY 2372 Ethical Hacking
- ITNW 1425 Fundamentals Networking Tech
- ITNW 1408 Implement & Support Client Sys
- ITSE 2371 Android OS Programming
- ITSC 2439 Personal Comp Help Desk Supp
- ITSY 2400 Operating System Security
- ITSY 2459 Security Assessment & Auditing
- ITSY 2443 Computer System Forensics
- ITSY 2401 Firewalls & Network Security
- ITSY 2330 Intrusion Detection
- ITSY 2341 Security Management Practices
- BMGT 2482 Business Admin & Management
- ITSE 1479 Intro to Scripting Languages

Business Directed Elective (3 Semester Credit Hours)

Complete ALL:

- BCIS 1305 Business Computer Applications
- BUSI 1307 Personal Finance
- BUSI 2301 Business Law
- BUSI 2305 Business Statistics
- ENGL 2311 Technical & Business Writing
- MATH 1314 College Algebra
- MATH 1325 Calculus-Business/Soc Science
- MATH 1342 Elementary Statistical Methods
- SPCH 1321 Business and Professional Comm

Healthcare Management Elective (3 Semester Credit Hours)

- BMGT 1301 Supervision
- BMGT 1305 Communications in Management
- BMGT 2309 Leadership
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- MRKG 1311 Principles of Marketing
- HITT 1253 Legal/Ethical Aspects/Health
- HPRS 2200 Pharmacology for Health Prof
- HPRS 2201 Pathophysiology
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- HITT 2346 Advanced Medical Coding
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- BUSI 1301 Business Principles
- HPRS 1206 Essentials Medical Terminology
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- BUSI 2301 Business Law
- ACNT 1329 Payroll/Bus Tax Accounting
- HITT 2260 Clinical-Health Info Tech
- HITT 1301 Health Data Content and Struct
- HITT 1342 Ambulatory Coding
- HITT 2343 Qual Assess/Perform Improve
- HITT 1341 Coding/Classification Systems
- HITT 1345 Health Care Delivery Systems
- HITT 1311 Health Information Systems
- HITT 2149 RHIT Competency Review
- HITT 2326 Project Management Health Pro
- HITT 2339 Health Info Org and Supervis
- HPRS 2172 Health Care Communications
- HITT 2261 Clinical Health Info/Med Rec
- HITT 2335 Coding & Reimbursement Mthd
- HPRS 1561 Clin-Hlth Srvc/Allied Hlth
- BUSI 1307 Personal Finance
- HPRS 1304 Basic Health Profession Skill
- HPRS 1202 Wellness and Health Promotion
- HPRS 1370 Central Sterile Processing II
- HPRS 1470 Central Sterile Processing I
- HPRS 1471 Central Sterile Process III
- MDCA 1302 Human Disease/Pathophysiology
- MDCA 1409 Anatomy/Physiology for MA
- MDCA 1321 Administrative Procedures
- MDCA 1448 Pharm/Admins of Medications
- MDCA 1310 MA Interpersonal/Comm Skills
- MDCA 1254 MA Credentialing Exam Review
- MDCA 1352 Medical Asst Lab Procedures
- MDCA 1160 Clinical-Med/Clinical Asst
- MDCA 1161 Clinical-Med/Clinical Asst
- MDCA 1162 Clinical-Med/Clinical Asst
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- MDCA 1305 Medical Law and Ethics
- MDCA 1343 Medical Insurance
- MDCA 1417 Procedures in a Clinical Sett
- BMGT 2482 Business Admin & Management
- HPRS 2321 Med Law & Ethics for Hlth Pro
- HPRS 2331 Gen Health Professions Mgmt

Plant Health Specialist Elective (3 Semester Credit Hours)

Complete ANY:

- HALT 1313 Horticultural Entomology
- HALT 1317 Trees
- HALT 1333 Landscape Irrigation
- HALT 1324 Turfgrass Sci and Mmgt

American History I (3 Semester Credit Hours)

Complete ANY:

- HIST 1301 United States History I
- HIST 2327 Mexican-American History I

American History II (3 Semester Credit Hours)

Complete ANY:

- HIST 1302 United States History II
- HIST 2328 Mexican-American History II
- HIST 2301 Texas History

Office Technology Professional Elective (3 Semester Credit Hours)

- POFT 1127 Introduction to Keyboarding
- POFT 1319 Records & Info Management
- BMGT 1301 Supervision

- BMGT 1305 Communications in Management
- BMGT 2309 Leadership
- ACNT 1311 Intro/Computerized Accounting
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- ACNT 1313 Computerized Acct Applications
- MRKG 1311 Principles of Marketing
- RELE 1303 Real Estate Appraisal
- RELE 1307 Real Estate Investments
- RELE 1311 Law of Contracts
- RELE 1315 Property Management
- RELE 1319 Real Estate Finance
- RELE 2301 Law of Agency
- POFI 1449 Spreadsheets
- POFI 2401 Word Processing
- ITSE 2417 Java Programming
- ITSW 1407 Introduction to Database
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- COSC 1436 Programming Fundamentals I
- ITSE 1450 System Analysis and Design
- POFI 2431 Desktop Publishing
- POFT 1329 Beginning Keyboarding
- ITSE 1411 Beginning Web Programming
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- BUSI 1301 Business Principles
- ITSE 1430 Introduction to C# Programming
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- RELE 1300 Contract Forms and Addenda
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- IBUS 1301 Principles of Exports
- IBUS 1302 Principles of Imports
- RELE 1406 Principles of Real Estate
- BUSI 2301 Business Law
- ACCT 2302 Principles of Managerial Acct
- ACNT 1303 Introduction to Accounting I
- ACNT 1329 Payroll/Bus Tax Accounting
- ACNT 2303 Intermediate Accounting I
- ACNT 2309 Cost Accounting
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- BCIS 1305 Business Computer Applications
- ITSY 1300 Fundament Information Security
- ITSY 2342 Incident Response & Handling
- COSC 1420 "C" Programming
- COSC 2436 Programming Fundamentals III
- POFT 2312 Bus Correspond/Communication
- POFT 1301 Business English
- POFT 1409 Administrative Office Procd I
- COSC 1301 Introduction to Computing
- BUSI 1307 Personal Finance
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- ITSE 2409 Database Programming
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- ACCT 2301 Principles of Financial Acct
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- ITCC 1414 CCNA 1: Introduction Networks
- ITCC 1444 CCNA 2: Switch/Rout/Wireless
- ITCC 2420 CCNA 3: Entp/Ntwk/Sec/Automat
- ACNT 2302 Accounting Capstone
- ITSE 2310 iOS Application Programming
- ITSE 2302 Intermediate Web Programming
- ITSE 1303 Introduction to MySQL
- ITSE 1333 Mobile Application Development
- ITSY 2372 Ethical Hacking
- ITSE 2371 Android OS Programming
- ITSY 2400 Operating System Security
- ITSY 2459 Security Assessment & Auditing
- ITSY 2443 Computer System Forensics
- ITSY 2401 Firewalls & Network Security
- ITSY 2330 Intrusion Detection
- ITSY 2341 Security Management Practices
- BMGT 2482 Business Admin & Management
- ITSE 1479 Intro to Scripting Languages

Information Technology Elective (3 Semester Credit Hours)

- ITSE 2417 Java Programming
- ITSW 1407 Introduction to Database
- ITNW 1454 Implement & Support Servers
- COSC 1436 Programming Fundamentals I
- ITSE 1450 System Analysis and Design
- INEW 2434 Advanced Web Programming
- ITSE 1411 Beginning Web Programming
- ITSE 1430 Introduction to C# Programming
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- BCIS 1305 Business Computer Applications
- ITSY 1300 Fundament Information Security
- ITSY 2342 Incident Response & Handling
- COSC 1420 "C" Programming
- COSC 2436 Programming Fundamentals III
- COSC 1301 Introduction to Computing
- ITSC 2346 Computer Center Management
- ITSE 2409 Database Programming
- ITCC 1414 CCNA 1: Introduction Networks
- ITCC 1444 CCNA 2: Switch/Rout/Wireless
- ITCC 2420 CCNA 3: Entp/Ntwk/Sec/Automat
- ITNW 1309 Fundamentals of Cloud Comp
- ITSE 2310 iOS Application Programming
- ITSE 2302 Intermediate Web Programming
- ITNW 2427 Advanced Cloud Concepts
- ITSC 1416 Linux Installation/Configurat
- ITSE 1303 Introduction to MySQL
- ITSE 1333 Mobile Application Development
- ITNW 1436 Cloud Deployment/Infrst Mgmt
- ITSY 2372 Ethical Hacking
- ITNW 1425 Fundamentals Networking Tech
- ITNW 1408 Implement & Support Client Sys
- ITSE 2371 Android OS Programming
- ITSC 2439 Personal Comp Help Desk Supp
- ITSY 2400 Operating System Security
- ITSY 2459 Security Assessment & Auditing
- ITSY 2443 Computer System Forensics
- ITSY 2401 Firewalls & Network Security
- ITSY 2330 Intrusion Detection
- ITSY 2341 Security Management Practices
- ITSE 1479 Intro to Scripting Languages

Science Elective (3 Semester Credit Hours)

- BIOL 2306 Environmental Biology (Lec)
- CHEM 2389 Academic Cooperative
- BIOL 2389 Academic Cooperative
- CHEM 2289 Academic Cooperative
- BIOL 2316 Genetics (Lecture)
- CHEM 2425 Organic Chem II (Lec+Lab)
- CHEM 1411 General Chemistry I (Lec/Lab)
- CHEM 2423 Organic Chemistry I (Lec/Lab)
- GEOL 1305 Environmental Science (Lec)
- GEOL 1401 Earth Sc Non-Sci Mj (Lec/Lab)
- GEOL 1403 Physical Geology (Lec/Lab)
- GEOL 1404 Historical Geology (Lec/Lab)
- GEOL 1405 Enviro Science (lec/lab)
- GEOL 1445 Oceanography (Lec/Lab)
- GEOL 1447 Meteorology (Lec/Lab)
- PHYS 1401 College Physics I (Lec/Lab)
- PHYS 1402 College Physics II (Lec/Lab)
- PHYS 1403 Stars and Galaxies (Lec/Lab)
- PHYS 1404 Solar System (Lec/Lab)
- PHYS 2425 University Physic I (Lec/Lab)
- PHYS 2426 University Phys II (Lec/Lab)
- GEOL 1402 Earth Sci Non-Sc II (Lec/Lab)
- PHYS 1415 Physical Science I (Lec/Lab)
- BIOL 2406 Environmental Biol (Lec/Lab)
- CHEM 1405 Intro Chemistry I (Lec/Lab)
- CHEM 1406 Intr Chm I-Ald Hlth (Lec/Lab)
- BIOL 2401 Anatomy & Physiology I
- BIOL 2420 Microbiology Non-Sci Majors
- CHEM 1409 Gen Chem Engr Majors
- CHEM 1412 General Chemistry II
- BIOL 1406 Biol Scien Maj I (Lec/Lab)
- BIOL 1407 Biol Science Maj II (Lec/Lab)
- BIOL 2402 Anatomy & Physiology II
- BIOL 2421 Microbiology Sci Maj (lec/lab)
- BIOL 1408 Biol Non-Sci Maj I (Lec/Lab)
- BIOL 1409 Biol Non-Sci Maj II (Lec/Lab)
- CHEM 1407 Intro Chemistry II (Lec/Lab)

Occupational Safety & Environmental Technology Elective (3 Semester Credit Hours)

Complete ANY:

- BIOL 2406 Environmental Biol (Lec/Lab)
- EPCT 1327 Basic Water Works Operations
- EPCT 1328 Basic Wastewater Operations
- FIRT 1307 Fire Prevent Codes & Inspect
- FIRT 1315 Hazardous Materials I
- FIRT 1329 Building Codes & Construction
- FIRT 1338 Fire Protection Systems
- GEOL 1405 Enviro Science (lec/lab)
- OSHT 1305 OSHA Regulations-Construction
- OSHT 2309 Safety Program Management

Elective (3 Semester Credit Hours)

- BIOL 2306 Environmental Biology (Lec)
- DANC 2303 Dance Appreciation
- PSYC 2306 Human Sexuality
- MATH 2318 Linear Algebra
- HIST 2321 World Civilizations I
- HIST 2322 World Civilizations II
- MUSI 1306 Music Appreciation
- ARCH 1315 Architectural Computer Graphic
- PHIL 1301 Introduction to Philosophy
- COMM 1307 Intro to Mass Communication
- CRIJ 1301 Intro to Criminal Justice
- CRIJ 1306 Court Systems and Practices
- SPAN 2312 Intermediate Spanish II
- CRIJ 1307 Crime in America
- CRIJ 1313 Juvenile Justice System
- CRIJ 2313 Correctional System & Practice
- CRIJ 2314 Criminal Investigation
- CRIJ 2328 Police Systems and Practices
- SOCI 1301 Introduction to Sociology
- SOCW 2361 Introduction to Social Work
- SPAN 2311 Intermediate Spanish I
- TECA 1354 Child Growth and Development
- ECON 2301 Principles of Macroeconomics
- ECON 2302 Principles of Microeconomics
- PSYC 1300 Learning Framework
- ARCH 1311 Introduction to Architecture
- ARCH 1307 Architectural Graphics I
- COMM 2339 Writing for Radio/TV/Film
- COSC 1436 Programming Fundamentals I
- ARCH 1301 Architectural History I
- TECA 1311 Educating Young Children
- TECA 1318 Wellness of The Young Child
- HECO 1322 Nutrition and Diet Therapy
- PSYC 2314 Life Span Growth/Development
- PSYC 2316 Psychology of Personality
- SOCI 2301 Marriage and the Family
- SPCH 1318 Interpersonal Communication
- BUSI 1301 Business Principles
- ENGL 2351 Mexican-American Literature
- HUMA 1315 Fine Arts Appreciation
- ARCH 1302 Architectural History II
- DRAM 1330 Stagecraft I
- DRAM 2331 Stagecraft II
- ARTS 1317 Drawing II
- DRAM 1352 Acting II
- MATH 2320 Differential Equations
- ANTH 2346 General Anthropology
- FREN 1411 Beginning French I
- FREN 1412 Beginning French II
- GEOG 1301 Physical Geography
- GEOG 1303 World Regional Geography
- GERM 1411 Beginning German I
- GERM 1412 Beginning German II
- MATH 2414 Calculus II

- PHIL 1304 Intro to World Religions
- PHIL 2306 Introduction to Ethics
- PSYC 2301 General Psychology
- PSYC 2308 Child Psychology
- SPAN 1411 Beginning Spanish I
- SPAN 1412 Beginning Spanish II
- BUSI 2301 Business Law
- ENGR 2301 Engineering Mechanics-Statics
- ENGR 2302 Engineer Mechanics-Dynamics
- HIST 2301 Texas History
- PSYC 2315 Psychology of Adjustment
- SOCI 1306 Social Problems
- TECA 1303 Families, School & Community
- EDUC 1300 Learning Framework
- ENGR 2308 Engineering Economics
- ENGR 1201 Introduction to Engineering
- MATH 2415 Calculus III
- SOCI 2319 Minority Studies
- SOCI 2336 Criminology
- ACCT 2302 Principles of Managerial Acct
- ARTS 1312 Design II (3-dimensional)
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- MATH 1325 Calculus-Business/Soc Science
- ANTH 2351 Cultural Anthropology
- CHEM 2389 Academic Cooperative
- MUSI 2181 Piano Class III
- MUSI 2182 Piano Class IV
- MUSI 1307 Music Literature
- SPCH 2335 Argumentation & Debate
- BCIS 1305 Business Computer Applications
- SPCH 1311 Intro to Speech Communication
- SPCH 1315 Public Speaking
- SPCH 1321 Business and Professional Comm
- ARTS 1311 Design I (2-dimensional)
- ARTS 1316 Drawing I
- ARTS 2316 Painting I
- ARTS 2346 Ceramics I
- DRAM 1351 Acting I
- PHIL 2303 Introduction to Formal Logic
- KINE 1102 Aerobic Fitness - Beginning
- KINE 1104 Bowling - Beginning
- KINE 1105 Camping/Backpacking - Beg
- KINE 1107 Conditioning - Beginning
- KINE 1113 Kickboxing - Beginning
- KINE 1116 Recreational Sports - Begin
- KINE 1117 Sailing - Beginning
- KINE 1119 Self Defense-Beginning
- KINE 1121 Swim Conditioning - Beginning
- KINE 1122 Swimming - Beginning
- KINE 1125 Tennis - Beginning
- KINE 1128 Volleyball - Beginning
- KINE 1129 Walk/Jog - Beginning
- KINE 1131 Water Aerobics - Beginning
- KINE 1132 Water Exercise - Beginning
- KINE 1133 Weight Training - Beginning
- KINE 1134 Yoga - Beginning
- KINE 1304 Personal and Community Health
- KINE 1306 First Aid
- KINE 2102 Aerobic Fitness - Intermediate
- KINE 2104 Bowling - Intermediate
- KINE 2107 Conditioning - Intermediate
- KINE 1148 Pilates - Beginning
- KINE 2113 Kickboxing - Intermediate
- KINE 2117 Sailing - Intermediate
- KINE 2121 Swim Conditioning - Intermed
- KINE 2122 Swimming - Intermediate
- KINE 2123 Swimming - Advanced
- KINE 2125 Tennis - Intermediate
- KINE 2128 Volleyball - Intermediate
- KINE 2129 Walk/Jog - Intermediate
- KINE 2131 Water Aerobics - Intermediate
- KINE 2132 Water Exercise - Intermediate
- KINE 2133 Weight Training - Intermediate
- KINE 2134 Yoga - Intermediate
- KINE 2148 Pilates - Intermediate
- COMM 1335 Intro to Electronic Media
- GEOG 1302 Human Geography
- KINE 1164 Intro Physcl Fitness/Wellness
- KINE 1308 Sports Officiating
- CHIN 1411 Beginning Chinese I
- CHIN 1412 Beginning Chinese II
- MUEN 1122 Jazz Ensembles
- MUEN 1123 Band
- MUEN 1124 Orchestra
- MUEN 1132 Combo
- MUEN 1133 Chamber Winds
- MUEN 1134 Chamber Strings
- MUEN 1135 Guitar Ensemble
- MUEN 1141 Large Choral Ensembles
- MUEN 1151 Chamber Singers
- MUEN 2122 Jazz Ensembles
- MUEN 2123 Band
- MUEN 2124 Orchestra
- MUEN 2132 Combo
- MUEN 2133 Chamber Winds
- MUEN 2134 Chamber Strings
- MUEN 2135 Guitar Ensemble
- MUEN 2141 Large Choral
- MUEN 2151 Chamber Singers
- ARTS 2389 Academic Cooperative
- ARTS 1301 Art Appreciation
- MUSI 1310 American Music
- PHIL 2316 Classical Philosophy
- ARCH 1308 Architectural Graphics II
- ARCH 2312 Architectural Technology
- BIOL 2389 Academic Cooperative
- COMM 1316 News Photography I
- COMM 2311 Media Writing
- COSC 1420 "C" Programming
- COSC 2436 Programming Fundamentals III
- ENGL 1302 Composition II
- ENGL 2389 Academic Cooperative
- HUMA 1301 Introduction to Humanities I
- MATH 1314 College Algebra
- MATH 1324 Math Business/Social Sciences
- CHEM 2289 Academic Cooperative
- KINE 1321 Coaching/Sports/Athletics I
- KINE 1301 Foundations of Kinesiology
- BIOL 2316 Genetics (Lecture)
- CHEM 2425 Organic Chem II (Lec+Lab)
- CHEM 1411 General Chemistry I (Lec/Lab)
- CHEM 2423 Organic Chemistry I (Lec/Lab)
- GEOL 1305 Environmental Science (Lec)
- GEOL 1401 Earth Sc Non-Sci Mj (Lec/Lab)
- GEOL 1403 Physical Geology (Lec/Lab)
- GEOL 1404 Historical Geology (Lec/Lab)
- GEOL 1405 Enviro Science (lec/lab)
- GEOL 1445 Oceanography (Lec/Lab)
- GEOL 1447 Meteorology (Lec/Lab)
- PHYS 1401 College Physics I (Lec/Lab)
- PHYS 1402 College Physics II (Lec/Lab)
- PHYS 1403 Stars and Galaxies (Lec/Lab)
- PHYS 1404 Solar System (Lec/Lab)
- PHYS 2425 University Physic I (Lec/Lab)
- PHYS 2426 University Phys II (Lec/Lab)
- GEOL 1402 Earth Sci Non-Sc II (Lec/Lab)
- COSC 1301 Introduction to Computing
- PHYS 1415 Physical Science I (Lec/Lab)
- KINE 2119 Self Defense-Intermediate
- KINE 2356 Care and Prevent Athl Injuries
- MATH 1342 Elementary Statistical Methods
- ENGL 2311 Technical & Business Writing
- SGNL 1401 Beginning American Sign Lang I
- SGNL 1402 Beginning American Sign Lng II
- SGNL 2301 Intermed American Sign Lang I
- SGNL 2302 Intermed American Sign Lang II
- ENGL 1301 Composition I
- KINE 1338 Concepts of Physical Fitness
- MATH 1316 Plane Trigonometry
- MATH 1350 Mathematics for Teachers I
- MATH 1351 Mathematics for Teachers II
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I
- ARTS 1303 Art Hist I (Prehist - 14 cnt)
- ARTS 1304 Art History II (14 Cent - Pr)
- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2327 American Literature I
- ENGL 2328 American Literature II
- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- ENGR 1304 Engineering Graphics I
- HIST 2328 Mexican-American History II
- HIST 1301 United States History I
- HIST 1302 United States History II
- HIST 2311 Western Civilization I
- HIST 2327 Mexican-American History I
- HIST 2312 Western Civilization II
- BIOL 2406 Environmental Biol (Lec/Lab)
- CHEM 1405 Intro Chemistry I (Lec/Lab)
- CHEM 1406 Intr Chm I-Ald Hlth (Lec/Lab)
- SPAN 1300 Beg Spanish Conversation I
- DANC 1301 Dance Composition-Choreograph
- MUSI 1311 Music Theory I
- MUSI 1312 Music Theory II
- MUSI 2311 Music Theory III
- MUSI 2312 Music Theory IV
- MUSI 1116 Sight Singing & Ear Train I
- MUSI 1117 Sight Singing & Ear Train II
- MUSI 2116 Sight Singing & Ear Train III
- MUSI 2117 Sight Singing & Ear Train IV
- MUSI 1303 Fundamentals of Music
- DANC 1201 Dance Composition - Improv
- BUSI 1307 Personal Finance
- DANC 2245 Intermediate Modern Dance
- ARTS 2323 Life Drawing
- ARTS 2333 Printmaking
- MUAP 1190 Individual Instruction
- MUAP 1191 Individual Instruction
- MUAP 1290 Individual Instruction
- MUAP 1291 Individual Instruction
- MUAP 1292 Individual Instruction
- MUAP 2291 Individual Instruction
- MUAP 2292 Individual Instruction
- MUSI 1181 Piano Class I
- MUSI 1183 Voice Class
- MUSI 1192 Guitar Class
- MATH 1314 Corequisite College Algebra
- MATH 1324 Coreq Math Busi/Social Sci
- MATH 1342 Coreq Elem Statistical Methods
- ARCH 2301 Architectural Freehand Draw I
- ARCH 2302 Architectural Freehand Draw II
- ARTS 2356 Photography I
- ARTS 2357 Photography II
- BIOL 2401 Anatomy & Physiology I
- BIOL 2420 Microbiology Non-Sci Majors
- GOVT 2305 Federal Government
- GOVT 2306 Texas Government
- MATH 1332 Contemporary Math - Quant Reas
- MATH 1332 Coreq Contemp Math/Quant Reas
- ENGR 2305 Electrical Circuits I
- ENGR 2332 Mechanics of Materials
- SOCW 2362 SW: Legislation/Program/Serv
- BUSI 2305 Business Statistics
- CHEM 1409 Gen Chem Engr Majors
- ACCT 2301 Principles of Financial Acct
- SOCW 2389 Academic Cooperative
- KINE 1149 Fencing - Beginning
- KINE 2149 Fencing - Intermediate
- MUSI 1182 Piano Class II
- ENGL 1301 Corequisite Composition I
- PSYC 2301 Corequisite General Psychology
- SOCI 1301 Corequisite Intro to Sociology
- ENGL 2341 Forms of Literature
- PSYC 2319 Social Psychology
- KINE 2127 Pickleball - Intermediate
- KINE 1127 Pickleball - Beginning
- CHEM 1412 General Chemistry II
- BIOL 1406 Biol Scien Maj I (Lec/Lab)
- BIOL 1407 Biol Science Maj II (Lec/Lab)
- BIOL 2402 Anatomy & Physiology II
- BIOL 2421 Microbiology Sci Maj (lec/lab)
- ARTS 2313 Graphic Design
- ARTS 2348 Digital Media
- COMM 2366 Film Appreciation
- DRAM 2336 Voice for The Actor
- DRAM 1310 Theater Appreciation
- DRAM 2366 Film Appreciation
- COMM 1336 Video Production I

- COMM 2303 Audio Production
- DRAM 2355 Script Analysis
- MATH 2305 Discrete Mathematics
- PSYC 2317 Statistical Methods in Psych
- PSYC 2320 Abnormal Psychology
- PSYC 2330 Biological Psychology
- ARTS 2347 Ceramics II
- ARTS 2317 Painting II
- DRAM 1120 Theater Practicum I
- DRAM 1121 Theater Practicum II
- DRAM 2120 Theater Practicum III
- DRAM 2121 Theater Practicum IV
- ARTS 2326 Sculpture
- BIOL 1408 Biol Non-Sci Maj I (Lec/Lab)
- BIOL 1409 Biol Non-Sci Maj II (Lec/Lab)
- HIST 2381 African American History I
- EDUC 1301 Intro to Teaching Profession
- EDUC 2301 Intro to Special Populations
- ENGL 2307 Creative Writing I
- HIST 2382 African American History II
- CHEM 1407 Intro Chemistry II (Lec/Lab)
- FREN 2311 Intermediate French I
- FREN 2312 Intermediate French II
- GERM 2311 Intermediate German I
- GERM 2312 Intermediate German II
- CRIJ 1310 Fundamentals of Criminal Law
- CRIJ 2323 Legal Aspects Law Enforcement
- DANC 1110 Tap Dance
- DANC 1112 Dance Practicum
- DANC 1241 Beginning Ballet
- DANC 2241 Intermediate Ballet
- DANC 1245 Beginning Modern Dance
- DANC 1247 Beginning Jazz Dance
- DANC 2247 Intermediate Jazz Dance
- DANC 1151 Freshman Dance Performance
- DANC 2151 Sophomore Dance Performance
- ARCH 1303 Architectural Design I
- ARCH 1304 Architectural Design II
- ANTH 2302 Introduction to Archeology

Graphic Communication Elective (3 Semester Credit Hours)

- BMGT 1301 Supervision
- BMGT 1305 Communications in Management
- BMGT 2309 Leadership
- BUSG 1315 Small Business Operations
- BUSG 1341 Small Business Financing
- MRKG 1311 Principles of Marketing
- PHTC 1343 Expressive Photography
- PHTC 1353 Portraiture I
- PHTC 2331 Architectural Photography
- BUSG 1302 E-Business Management
- MRKG 1301 Customer Relationship Mgt
- MRKG 2348 Marketing Research Strategies
- MRKG 2349 Advertising & Sales Promotions
- MRKG 1302 Principles of Retailing
- COSC 1436 Programming Fundamentals I
- PHTC 1300 Photo Digital Imaging I
- BMGT 1341 Business Ethics
- BMGT 1327 Principles of Management
- BUSI 1301 Business Principles
- PHTC 2343 Portfolio Development
- PHTC 2349 Photo Digital Imaging II
- MRKG 2333 Principles of Selling
- BUSG 2309 Small Business Manage/Entrep
- ARTS 1317 Drawing II
- BMGT 1313 Principles of Purchasing
- BMGT 1331 Production & Operations Mgt
- BUSI 2301 Business Law
- ARTS 1312 Design II (3-dimensional)
- COSC 1437 Programming Fundamentals II
- COSC 2425 Computer Organization
- ARTS 1311 Design I (2-dimensional)
- ARTS 1316 Drawing I
- ARTS 2316 Painting I
- ARTS 2346 Ceramics I
- ARTS 2389 Academic Cooperative
- ARTS 1301 Art Appreciation
- COSC 1420 "C" Programming
- COSC 2436 Programming Fundamentals III
- COSC 1301 Introduction to Computing
- ARTS 1303 Art Hist I (Prehist - 14 cnt)
- ARTS 1304 Art History II (14 Cent - Pr)
- BUSI 1307 Personal Finance
- ARTS 2323 Life Drawing
- ARTS 2333 Printmaking
- BMGT 2331 Principles of Quality Mgmt
- BUSG 2300 Busi Leadership Application
- ARTS 2356 Photography I
- ARTS 2357 Photography II
- BUSG 1307 Entrepreneurship/Economic Dev
- BUSI 2305 Business Statistics
- MRKG 2312 e-Commerce Marketing
- BUSG 2305 Business Law/Contracts
- BUSG 1370 Entrepreneurial Mindset
- BMGT 2341 Strategic Management
- ARTS 2313 Graphic Design
- ARTS 2348 Digital Media
- ARTS 2347 Ceramics II
- ARTS 2317 Painting II
- ARTS 2326 Sculpture
- BMGT 2482 Business Admin & Management

Language, Culture and Philosophy (3 Semester Credit Hours)

Complete ANY:

- ENGL 2322 British Literature I
- ENGL 2323 British Literature II
- ENGL 2327 American Literature I
- ENGL 2328 American Literature II
- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- HIST 2311 Western Civilization I
- HIST 2312 Western Civilization II
- HIST 2321 World Civilizations I
- HIST 2322 World Civilizations II
- HUMA 1301 Introduction to Humanities I
- PHIL 1301 Introduction to Philosophy
- PHIL 1304 Intro to World Religions
- PHIL 2306 Introduction to Ethics
- PHIL 2316 Classical Philosophy
- SPAN 2311 Intermediate Spanish I
- SPAN 2312 Intermediate Spanish II

Creative Arts (3 Semester Credit Hours)

Complete ANY:

- ARTS 1301 Art Appreciation
- ARTS 1303 Art Hist I (Prehist - 14 cnt)
- COMM 2366 Film Appreciation
- DANC 2303 Dance Appreciation
- DRAM 1310 Theater Appreciation
- DRAM 2366 Film Appreciation
- HUMA 1315 Fine Arts Appreciation
- MUSI 1306 Music Appreciation
- MUSI 1307 Music Literature
- MUSI 1310 American Music

Mechanical Engineering Elective (3 Semester Credit Hours)

Complete ALL:

- ENGR 1304 Engineering Graphics I
- ENGR 2305 Electrical Circuits I
- ENGR 2332 Mechanics of Materials
- GOVT 2306 Texas Government
- HIST 1302 United States History II
- MATH 2320 Differential Equations

Mathematics or Life and Physical Sciences (3 Semester Credit Hours)

Complete ALL:

- MATH 1314 College Algebra
- MATH 1316 Plane Trigonometry
- MATH 1324 Math Business/Social Sciences
- MATH 1325 Calculus-Business/Soc Science
- MATH 1332 Contemporary Math - Quant Reas
- MATH 1342 Elementary Statistical Methods
- MATH 2412 Pre-Calculus Math
- MATH 2413 Calculus I
- BIOL 1406 Biol Scien Maj I (Lec/Lab)
- BIOL 1407 Biol Science Maj II (Lec/Lab)
- BIOL 1408 Biol Non-Sci Maj I (Lec/Lab)
- BIOL 1409 Biol Non-Sci Maj II (Lec/Lab)
- BIOL 2401 Anatomy & Physiology I
- BIOL 2402 Anatomy & Physiology II
- BIOL 2406 Environmental Biol (Lec/Lab)
- BIOL 2421 Microbiology Sci Maj (lec/lab)
- CHEM 1405 Intro Chemistry I (Lec/Lab)
- CHEM 1411 General Chemistry I (Lec/Lab)
- CHEM 1412 General Chemistry II
- CHEM 2423 Organic Chemistry I (Lec/Lab)
- CHEM 2425 Organic Chem II (Lec+Lab)
- GEOL 1401 Earth Sc Non-Sci Mj (Lec/Lab)
- GEOL 1402 Earth Sci Non-Sc II (Lec/Lab)
- GEOL 1403 Physical Geology (Lec/Lab)
- GEOL 1404 Historical Geology (Lec/Lab)
- GEOL 1405 Enviro Science (lec/lab)
- GEOL 1445 Oceanography (Lec/Lab)
- GEOL 1447 Meteorology (Lec/Lab)
- PHYS 1401 College Physics I (Lec/Lab)
- PHYS 1402 College Physics II (Lec/Lab)
- PHYS 1403 Stars and Galaxies (Lec/Lab)
- PHYS 1404 Solar System (Lec/Lab)
- PHYS 1415 Physical Science I (Lec/Lab)
- PHYS 2425 University Physic I (Lec/Lab)
- PHYS 2426 University Phys II (Lec/Lab)

Criminal Justice Elective (3 Semester Credit Hours)

Complete ANY:

- CJSA 1330 Cybercrimes
- CJSA 1347 Police Organization & Admin
- CJSA 1348 Ethics in Criminal Justice
- CJSA 2331 Child Abuse: Prevent/Investig
- CRIJ 1313 Juvenile Justice System
- CJLE 1345 Int Crime Scene Investigation
- CJLE 1373 Serial Killers & Ext Homicide
- CJLE 1375 Sex Crimes
- CJLE 1506 Basic Peace Officer I
- CJLE 1512 Basic Peace Officer II
- CJLE 1518 Basic Peace Officer III
- FIRT 1301 Fundamentals Fire Protection
- HMSY 1371 Computer Crime
- SLPS 1371 Intro to Security Management
- SLPS 1372 Security and Loss Prevention
- SLPS 2371 Fund of Physical Security

Studio Art Elective (3 Semester Credit Hours)

Complete ALL:

- ARTS 1317 Drawing II
- ARTS 2313 Graphic Design
- ARTS 2316 Painting I
- ARTS 2317 Painting II
- ARTS 2323 Life Drawing
- ARTS 2326 Sculpture
- ARTS 2333 Printmaking
- ARTS 2346 Ceramics I
- ARTS 2347 Ceramics II
- ARTS 2348 Digital Media
- ARTS 2356 Photography I
- ARTS 2357 Photography II
- ARTS 2389 Academic Cooperative

Component Area Option (3 Semester Credit Hours)

Complete ANY:

- ENGL 1302 Composition II
- ENGL 2311 Tech & Busi Writing Honors

Culinary Arts Elective (3 Semester Credit Hours)

Complete ANY:

- CHEF 1340 Meat Preparation and Cooking
- CHEF 2302 Saucier
- CHEF 2336 Charcuterie
- CHEF 2341 Advanced Culinary Competition
- HAMG 1321 Intro to Hospitality Industry
- HAMG 2305 Hospitality Mgt & Leadership
- HAMG 2307 Hospitality Marketing & Sales
- PSTR 1206 Cake Decorating I
- PSTR 1305 Breads and Rolls
- PSTR 1310 Pies, Tarts,Teacakes & Cookie
- PSTR 1442 Quantity Bakeshop Production

- PSTR 2207 Cake Decorating II
- PSTR 2331 Advanced Pastry Shop
- TRVM 1201 Customer Sales and Service

Life and Physical Sciences (4 Semester Credit Hours)

Complete ANY:

- BIOL 1406 Biol Scien Maj I (Lec/Lab)
- BIOL 1407 Biol Science Maj II (Lec/Lab)
- BIOL 1408 Biol Non-Sci Maj I (Lec/Lab)
- BIOL 1409 Biol Non-Sci Maj II (Lec/Lab)
- BIOL 2401 Anatomy & Physiology I
- BIOL 2402 Anatomy & Physiology II
- BIOL 2406 Environmental Biol (Lec/Lab)
- BIOL 2421 Microbiology Sci Maj (lec/lab)
- CHEM 1405 Intro Chemistry I (Lec/Lab)
- CHEM 1411 General Chemistry I (Lec/Lab)
- CHEM 1412 General Chemistry II
- CHEM 2423 Organic Chemistry I (Lec/Lab)
- CHEM 2425 Organic Chem II (Lec+Lab)
- GEOL 1401 Earth Sc Non-Sci Mj (Lec/Lab)
- GEOL 1402 Earth Sci Non-Sc II (Lec/Lab)
- GEOL 1403 Physical Geology (Lec/Lab)
- GEOL 1404 Historical Geology (Lec/Lab)
- GEOL 1405 Enviro Science (lec/lab)
- GEOL 1445 Oceanography (Lec/Lab)
- GEOL 1447 Meteorology (Lec/Lab)
- PHYS 1401 College Physics I (Lec/Lab)
- PHYS 1402 College Physics II (Lec/Lab)
- PHYS 1403 Stars and Galaxies (Lec/Lab)
- PHYS 1404 Solar System (Lec/Lab)
- PHYS 1415 Physical Science I (Lec/Lab)
- PHYS 2425 University Physic I (Lec/Lab)
- PHYS 2426 University Phys II (Lec/Lab)

Child Development Elective (3 Semester Credit Hours)

Complete ANY:

- CDEC 1323 Observation and Assessment
- CDEC 2307 Math/Science Early Childhood
- CDEC 2324 CDA III
- CDEC 2326 Admin of Prog for Children I
- CDEC 2328 Admin of Progs for Children II
- CDEC 2341 The School Age Child

Engineering Elective (3 Semester Credit Hours)

Complete ALL:

- ENGL 2311 Technical & Business Writing
- GOVT 2306 Texas Government
- HIST 1302 United States History II
- ENGR 1304 Engineering Graphics I
- ENGR 2301 Engineering Mechanics-Statics
- ENGR 2302 Engineer Mechanics-Dynamics
- ENGR 2305 Electrical Circuits I
- ENGR 2308 Engineering Economics
- ENGR 2332 Mechanics of Materials
- MATH 2320 Differential Equations
- MATH 2318 Linear Algebra

Kinesiology Activity (1 Semester Credit Hour)

- KINE 1102 Aerobic Fitness - Beginning
- KINE 1104 Bowling - Beginning
- KINE 1105 Camping/Backpacking - Beg
- KINE 1107 Conditioning - Beginning
- KINE 1113 Kickboxing - Beginning
- KINE 1116 Recreational Sports - Begin
- KINE 1117 Sailing - Beginning
- KINE 1119 Self Defense-Beginning
- KINE 1121 Swim Conditioning - Beginning
- KINE 1122 Swimming - Beginning
- KINE 1125 Tennis - Beginning
- KINE 1128 Volleyball - Beginning
- KINE 1129 Walk/Jog - Beginning
- KINE 1131 Water Aerobics - Beginning
- KINE 1132 Water Exercise - Beginning
- KINE 1133 Weight Training - Beginning
- KINE 1134 Yoga - Beginning
- KINE 1304 Personal and Community Health
- KINE 1306 First Aid
- KINE 2102 Aerobic Fitness - Intermediate
- KINE 2104 Bowling - Intermediate
- KINE 2107 Conditioning - Intermediate
- KINE 1148 Pilates - Beginning
- KINE 2113 Kickboxing - Intermediate
- KINE 2117 Sailing - Intermediate
- KINE 2121 Swim Conditioning - Intermed
- KINE 2122 Swimming - Intermediate
- KINE 2123 Swimming - Advanced
- KINE 2125 Tennis - Intermediate
- KINE 2128 Volleyball - Intermediate
- KINE 2129 Walk/Jog - Intermediate
- KINE 2131 Water Aerobics - Intermediate
- KINE 2132 Water Exercise - Intermediate
- KINE 2133 Weight Training - Intermediate
- KINE 2134 Yoga - Intermediate
- KINE 2148 Pilates - Intermediate
- KINE 1308 Sports Officiating
- KINE 1321 Coaching/Sports/Athletics I
- KINE 1301 Foundations of Kinesiology
- KINE 2119 Self Defense-Intermediate
- KINE 2356 Care and Prevent Athl Injuries
- KINE 1338 Concepts of Physical Fitness
- KINE 1149 Fencing - Beginning
- KINE 2149 Fencing - Intermediate
- KINE 2127 Pickleball - Intermediate
- KINE 1127 Pickleball - Beginning

PSYC/SOCI Elective (3 Semester Credit Hours)

- PSYC 2306 Human Sexuality
- SOCI 1301 Introduction to Sociology
- PSYC 1300 Learning Framework
- PSYC 2314 Life Span Growth/Development
- PSYC 2316 Psychology of Personality
- PSYC 2301 General Psychology
- PSYC 2308 Child Psychology
- PSYC 2315 Psychology of Adjustment
- PSYC 2301 Corequisite General Psychology
- SOCI 1301 Corequisite Intro to Sociology
- PSYC 2319 Social Psychology
- PSYC 2317 Statistical Methods in Psych
- PSYC 2320 Abnormal Psychology
- PSYC 2330 Biological Psychology

Kinesiology Specialization (3 Semester Credit Hours)

Complete ANY:

- HECO 1322 Nutrition and Diet Therapy
- KINE 1301 Foundations of Kinesiology
- KINE 1304 Personal and Community Health
- KINE 1306 First Aid
- KINE 1308 Sports Officiating
- KINE 1321 Coaching/Sports/Athletics I
- KINE 1338 Concepts of Physical Fitness
- KINE 2356 Care and Prevent Athl Injuries

Child Care Administration Elective (3 Semester Credit Hours)

Complete ANY:

- CDEC 1323 Observation and Assessment
- CDEC 1356 Emergent Literacy Early Child
- CDEC 2307 Math/Science Early Childhood
- CDEC 2324 CDA III
- CDEC 2341 The School Age Child